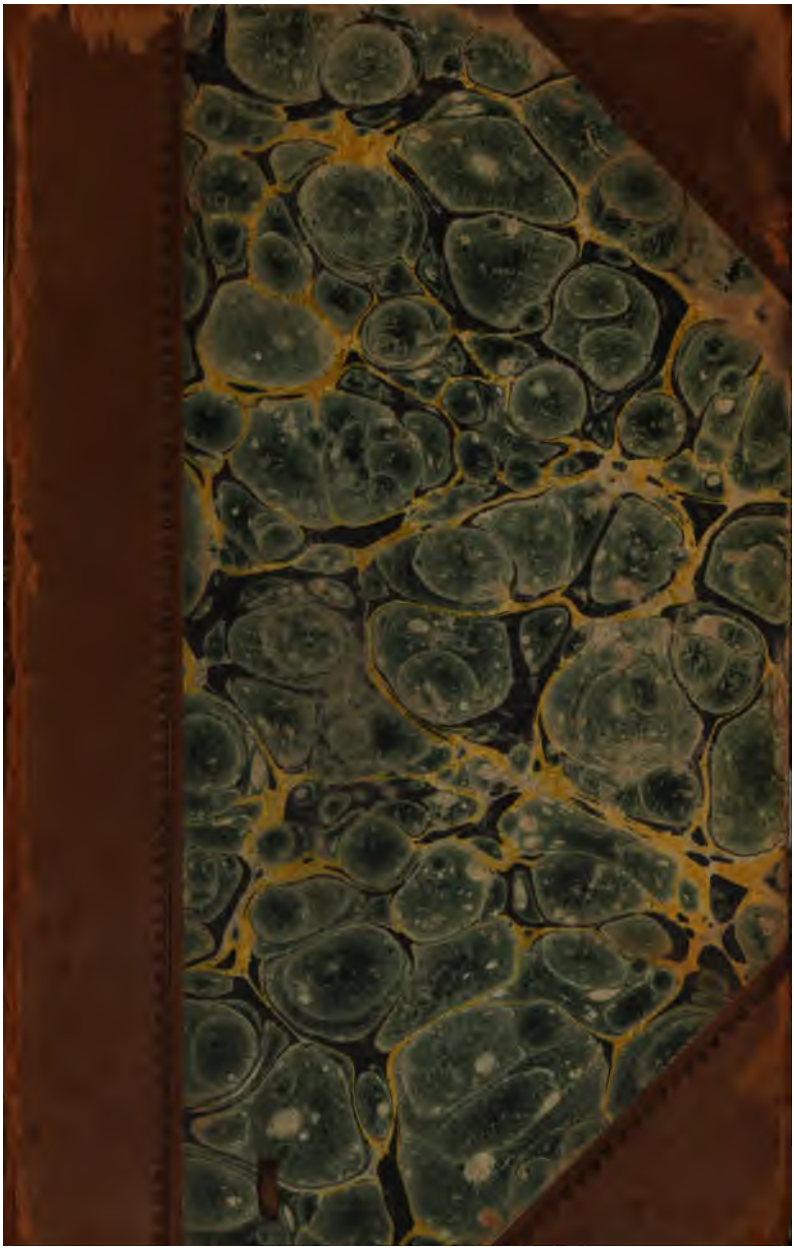


ON

INDIGESTION AND COSTIVENESS;

WITH

HINTS TO BOTH SEXES

ON THE IMPORTANT, SAFE, AND EFFICACIOUS MEANS OF RELIEVING DISEASES OF THE DIGESTIVE ORGANS BY

LAVEMENTS:

INCLUDING DIRECTIONS FOR THE SELECTION AND USE OF

APPARATUSES

FOR THEIR ADMINISTRATION:

AND THE BEST MEDICINAL PREPARATIONS FOR INTESTINAL AND OTHER INJECTIONS.

TO WHICH IS ADDED,

OBSERVATIONS ON THE MODE OF PRESERVING HEALTH AND PROLONGING LIFE, BY AIR, EXERCISE, SLEEP, CLOTHING, ETC.

INCLUDING

MANY USEFUL FAMILY PRESCRIPTIONS.

THE WHOLE

Illustrated by Coloured Engravings.

By EDWARD JUKES, Surgeon,
INVENTOR OF THE STOMACH-PUMP.

SECOND EDITION.

LONDON:
EFFINGHAM WILSON, ROYAL EXCHANGE;
AND SOLD BY ALL BOOKSELLERS.

1831.

LONDON:
PRINTED BY WILLIAM CLOWES,
Stamford-street.

PREFACE.

THE attention of the author having been directed for a number of years to the various mechanical, as well as scientific, means, requisite to exercise the healing art, and particularly to those more especially necessary to the preservation of the healthy functions of the stomach and bowels, as well as their restoration from disease, he ventures to place before the Public and the Profession the results at which his experience has enabled him to arrive, in relation to those important subjects. To preserve the action of the stomach and bowels, is to resist, in the most effectual manner, the inroads of nearly all diseases. Whilst the offices of these organs are duly performed, health may be said to be enjoyed; and the foundation of all other enjoyments, of all undertakings, and

the happy prosecution of all our pursuits, laid on the surest basis. It is to these organs also that our means of cure are applied; and on them are intended primarily and mainly to act, in the removal of almost every disease to which the human frame is liable. Surely, therefore, the best mode of exhibiting our remedies, so as to act efficiently upon those organs, and at the same time without injuring, but on the contrary promoting, their healthy functions, must be matters of the first importance to the Public, and to Professional Men. The Author ventures to think that his investigations have tended to promote these great ends; and it is the object of the present little work to extend the advantages which he believes them well calculated to afford.

London, Feb. 24, 1831.

PREFACE

TO THE

SECOND EDITION.

THE almost unprecedented rapidity with which the sale of the First Edition of this little Work has been effected, must be a source of the highest gratification to the feelings of the Author, who cannot but venture to indulge in the belief, that those of his readers who have been led to adopt the system of medicine advocated by him, have already experienced its decided superiority over every other kind of practice.

Stimulated by this conviction, and flattered by the reception of his first publication, he is encouraged to offer to the Public a Second Edition, which he has endeavoured materially to improve; it will also be found considerably enlarged, and to contain much

additional matter highly important to all, but which must be particularly so to those who are led to the *pursuit of health*, as they will find both the Anatomical Delineations and the Descriptive Part of the Structure of the various Viscera engaged in the important bodily functions so simple and easily understood, as to render it of general utility, a desideratum in medical literature too seldom to be obtained.

London, 1831.

CONTENTS.

CHAPTER I.

CHAPTER II.

CHAPTER III.

CHAPTER IV.

CHAPTER V.

CHAPTER VI.

CHAPTER VII.

CHAPTER VIII.

CHAPTER IX.

CHAPTER X.

MR. WHITLAW'S

Patent

MEDICATED VAPOUR BATH,

Employed with the Vegetable Remedies, is a powerful auxiliary in the cure of the under-mentioned diseases.

The effects of the Vapour Bath are :—

1st.—To equalize the circulation of the blood, and hence to remove coldness of the hands and feet, and to lessen the determination or flow of blood to the head.

2nd.—To promote sweat and re-establish insensible perspiration, and thereby to relieve symptoms of internal inflammation.

3rd.—To diminish nervous irritability: and in no instance has it failed to cure *tic douloureux*.

4th.—To promote cutaneous eruptions, and remove diseases of the skin.

5th.—To remove the effects of mercury and lead from the system.

6th.—To promote absorption of dropsical effusions.

7th.—To relieve difficulty of breathing, and hence to cure Asthma, and other diseases of the chest and lungs.

8th.—To strengthen the stomach, and impart a tone to the digestive organs, and cure dyspepsia with its consequent disorders.

9th.—To promote the healing of Scrofulous and Chronic Ulcers.

10th.—To remove Gouty and Rheumatic pains and swellings from the joints, and cure Lumbago, Sciatica, &c.

11th.—The Quinsy. The bath has never failed to relieve it.

12th.—The Croup. It may be regarded as a specific.

13th.—The Hooping Cough. Gives great relief.

14th.—The Measels. No instance of death

has taken place, when the bath has been employed.

15th.—To prevent and cure discharges of blood from the lungs and other internal organs.

16th.—To cure Acute and Chronic inflammation, the bath, judiciously medicated, is a certain specific.

17th.—To cure Gout, in all its forms, in a shorter time than any agent hitherto used.

18th.—Intermittent, (or agues) Typhus, and continued Fevers. The bath relieves and cures without the necessity of blood-letting.

19th.—Hydrophobia. This dreadful malady which up to the present time has defied the skill of the medical practice, has been successfully treated by Mr. Whitlaw, and also in a number of cases in America, by the physicians and surgeons who have adopted his system.

20th.—Palsy. It greatly relieves.

21st.—It has proved an effectual cure for Cancer (in its incipient stages,—Erysepilas—Scurvy—Painters' Cholic—Spinal affections—Palpitation of the heart—Inflammation of the eyes—Fits—Nettle rash—Jaundice—Ulceration

of the throat—Liver complaints—Scald head—and St. Vitus's Dance.

Dr. Fairbank of Bahae, and Mr. Owen of Calcutta, have found the bath a specific in CHOLERA MORBUS. The former not having lost a single case in the course of three years, and the latter not more than eight cases in a hundred.

Further information may be had at MR. WHITLAW'S *Vapour Bath Establishment, 14, Finsbury Place South, London.*

ON

INDIGESTION AND COSTIVENESS,

ETC. ETC.

REFERENCES TO THE FOLLOWING PAGE.

Observe that the Alimentary Canal is marked with Capital Letters.

A Entrance to the Œsophagus, at the back part of the mouth.

B B Œsophagus, running down behind the heart, and perforating the diaphragm.

C Stomach, with a short dotted line at the *entrance*, called the Cardia, and also a short dotted line at the lower *opening*, or outlet, denominated the Pylorus, at which place is a valve.

D D The Duodenum, or first of the small intestines.

E E E The convolutions of the Jejunum.

F F F The convolutions of the Ileum.

+ Where the Ileum enters the Cæcum, or first great gut, at which place is a valve, or contracting muscle.

G The Cæcum.
H Ascending portion of the Colon.
I Transverse arch of the Colon.
J Descending portion of the Colon.
K Sigmoid flexure of the Colon.

} The bands which draw these intestines into lobes, or bags, are described through their course by a dark line.

L The Rectum, or last great intestine, lost in the dark shading of the pelvis, and terminating at the anus.

a a The Lungs.

b The Heart, divested of its pericardium, or covering.

c c The diaphragm, or separation between the thorax and abdomen.

d The Liver, placed behind the stomach instead of before, in order that the position of the stomach might be better seen; the course of the liver is marked by a dotted line across the stomach.

e The Gall-bladder, situated under the liver, but in the following plate is shown in *front* of the Liver, that its situation may be better seen.

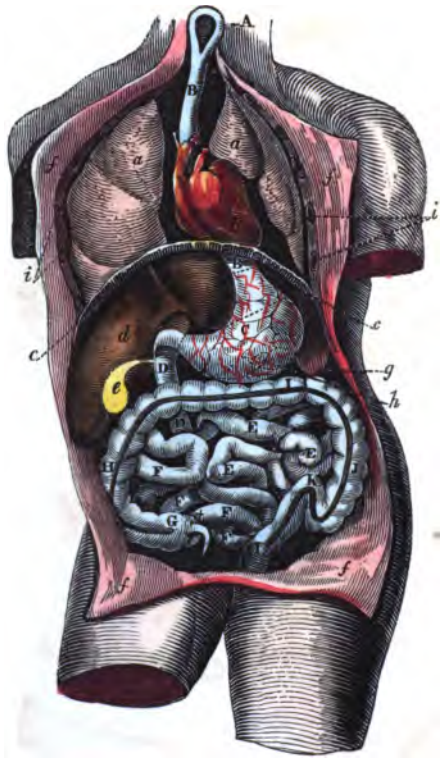
f f f f Flaps of skin and muscle, cut from the thorax and abdomen, and thrown back to show their contents.

g The spleen: *use unknown*.

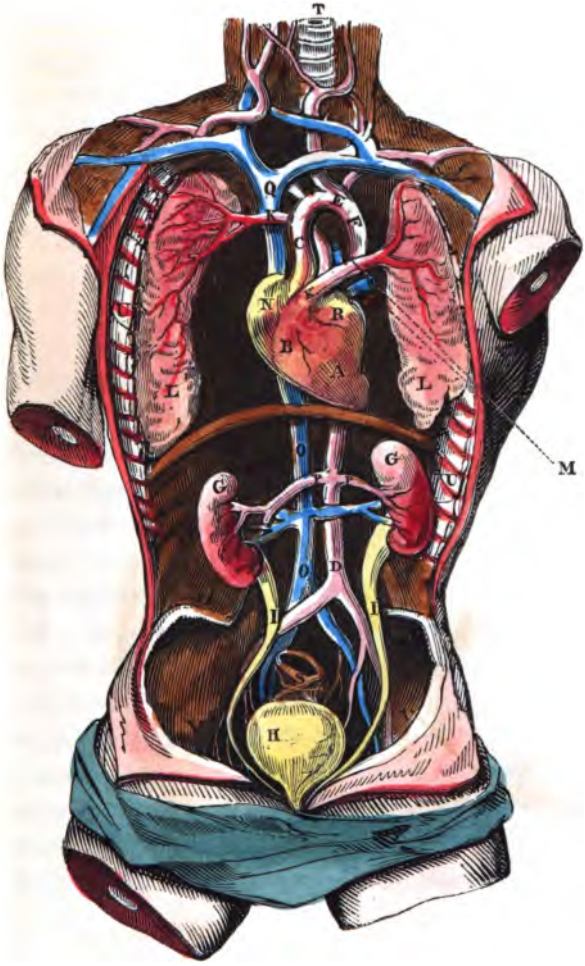
h The Pancreas, marked by a dotted line to show its situation under the stomach.

i i The Ribs sawn of.

Diagram of the appearance of the principal organs contained in the human body; but more especially intended to display the course of the alimentary canal, for which purpose the stomach is transposed, and its situation, therefore, represented before, instead of behind the liver.



***** For references to the various viscera, see the preceding page.**


T
Q
F
C
N
R
B
A
L
L
M
O
G
G
O
D
I
I
H

ON INDIGESTION,

&c.

INTRODUCTION.

THE period seems at length to have arrived when our prejudices are disappearing before the lights of science and experience. In no other department of medical treatment is this so very obviously the case as in that which more immediately relates to the subject of the present little work. The experience of ages, in every country and climate, had proved the frequent inconvenience and failure, and the not less frequent impropriety, of exhibiting purgative or aperient medicines in the usual manner, and shown the advantages which accrued from the employment of the same kind of remedies in a different form, namely, in that of lavements

Prejudices, in many respects inseparable from our national character, and honourable to our feelings, have prevented the general adoption of the practice amongst ourselves, unless in dangerous cases; although it has long been generally resorted to in foreign countries, as a necessary domestic mode of treatment in the majority of ailments, as well as one of the best preservatives against the first attacks of disorder.

This disinclination to employ a very beneficial, and, indeed, almost indispensable method of relief, arose in some degree also from the construction of the apparatus formerly used to attain the wished-for end. Some of these required the agency of a second person; and all of them were either managed with difficulty by the individual who required their use, or with little service; and always with great inconvenience. Fortunately, the author's invention of the stomach-pump, and the practical application of the principle to the injection and withdrawal of fluids into and from the stomach,

he will afterwards proceed to offer some remarks upon the circumstances which more especially require the employment of lavements and medicated injections. He may truly state, that there is nothing advanced in behalf of this mode of treatment, which is not well known to every respectable member* of the medical profession, but which, owing to its novelty in this country, is, generally speaking, unknown to the public, and consequently to the great majority of his readers.

* The author may take the present opportunity of stating, that his invention of the *stomach-pump* has already been the means of saving the lives of many hundred persons;—that, immediately upon its promulgation, it received the approbation of the most eminent medical characters in this country, and in Paris, where the author also introduced it with strong recommendations in its favour, with which he was honoured by Sir Astley Cooper, and other celebrated men;—and that it is now adopted by every member of the profession.

CHAPTER I.

A BRIEF VIEW OF THE FORM AND FUNCTIONS OF THE DIFFERENT PARTS OF THE DIGESTIVE ORGANS.

As preliminary to the following pages, I shall endeavour to describe the offices of the several organs connected with digestion, together with their situation, connexions, and appendages. In order to render this description more easily understood by my non-professional readers, I beg to refer them to the sketch facing the title-page, which will greatly assist them in forming a correct judgment on a subject, the advantages accruing from a knowledge of which must be obvious to every thinking mind, inasmuch as it is calculated to teach us the benefits which result from regular habits of living,

to lead us to select the most appropriate kinds of food, to guard against indigestible substances, to divide our time judiciously between exercise, air, meals, and rest; and in impaired health, to assist, by proper means, the natural action of the digestive organs.

The trunk of the body is divided into two principal cavities or chambers, denominated the thoracic and abdominal cavities. The former is separated from the latter by means of a transverse muscular arch, called the diaphragm, or midriff, which will be seen by reference to the sketch. The upper cavity is the thorax, or chest, and contains the lungs on each side, and the heart *nearly in the centre*, but rather pointing, at its lower extremity or apex, towards the left side (which position of the apex gives rise to the common opinion that it is situated on the left side), and it is enclosed by a membranous sac called the pericardium. These organs, with their various appendages, and the œsophagus, or passage for the food to the stomach, running

down from the back part of the mouth, between the lungs and behind the heart, form the chief contents of this cavity.

The second cavity, the abdomen, the abdominal cavity, or the belly, as it is variously called, situated below the thorax, immediately under the diaphragm, may be divided into two compartments,—the first and largest being the belly, or the abdomen proper, and the second and inferior, the pelvis. The first of these contains the *liver*, *gall-bladder*, *stomach*, *small* and *large intestines* (with the exception of the rectum), and *mesentery* (a membranous production, for the purpose of sustaining the large intestines in their proper situation, and by which they are, in a manner, suspended); *pancreas*, *spleen*, *kidneys*, and *large blood-vessels*, *absorbents*, *nerves*, &c. The lower compartment of this cavity, or *pelvis*, so called from its resemblance in shape to an ancient basin used by barbers, is formed or surrounded by the two hip-bones, and the bones at the bottom of the back, or lower end of the spine, which, being united

by strong ligaments, form, as it were, the basis of the trunk. It contains the *urinary bladder*, the *rectum* (or last and lowest of the large intestines), the *womb*, and all the *internal organs of generation*. But as our attention is chiefly called to the alimentary canal, it was not necessary to delineate the whole of these in the descriptive plate.

The mouth is the organ of mastication, and is a preparatory apparatus to digestion. It is provided, on the internal surface of the cheeks, at the angle of the jaw, and beneath it, with glands, whose office it is to secrete the saliva,—a fluid which is indispensable to the preparatory office of digestion. Mastication, by which is signified the reducing or grinding down the food to small particles, and imbuing it with the saliva, is performed by means of the teeth, assisted by the action of the jaws, the tongue, the cheeks, and the lips. The upper jaw is fixed during this operation, and it is only the lower that moves, which, being hung by a sort of hinge, so constructed as to allow of a double action, is

impelled by muscular power, not only up and down, but from side to side. It is thus enabled more effectually to divide and tear to pieces the food: whilst the tongue is continually engaged during this process in forcing it between the teeth, the cheeks and the lips resist it on the other side, and prevent it, after being masticated, from falling out of the mouth. During this grinding and lacerating process, the particles of food become intimately mixed with the saliva and the mucus of the mouth, and are then fit to be received into the stomach, having undergone what in truth might be termed the first process of digestion.

The passage leading from the back part of the mouth (or fauces), is partly for the purpose of conveying the food into the stomach, or pouch for receiving it in its masticated state, where it undergoes the principal part of the digestive process. This passage is called the *œsophagus*: it descends into the abdomen, and is united to the upper part of, or opening into, the stomach. This open-

ing is called the *cardia;* and the passage to it from the mouth, the œsophagus, proceeds in an almost perpendicular direction; but towards the lower part, inclines a little to the left side. The stomach is placed chiefly in the left side, in a transverse direction, across the upper part of the belly or abdomen, and terminates on the right side, at that part called the pyloric extremity, where it throws out the first or commencement of that portion of the digestive canal named the intestines, which gradually and irregularly increase in size, forming many circumvolutions, till they terminate at the *anus*. For the convenience of anatomical demonstration, the intestines are divided into six imaginary portions, there being no actual or visible line by which their intermediate parts can be said to terminate or to commence. They are thus denominated:—

Duodenum,
Jejunum,
Ileum,
} or small intestines.

Cæcum,
Colon,
Rectum,
} or large intestines.

The colon is also described as forming four divisions, viz. the ascending portion, transverse arch, descending portion, and sigmoid flexure.

That portion of the small intestines called the duodenum, commences at the outlet of the stomach, named the pylorus, and is in length from nine to twelve inches. About the middle of this portion there is a small perforation, which is the opening of the ducts that lead from the liver and gall-bladder. This duct, which is single at its entrance into the intestine, and is called the common bile duct, is formed of two others,—one coming directly from the liver, the other from the gall-bladder. Through them the bile passes from the liver and gall-bladder, for the purposes of digestion and nutrition. Another duct enters this intestine, in some cases along with the common bile duct; in others, very near to it. This other duct comes from the

pancreas, or sweet-bread,—a large gland, situated under the stomach, and whose office it is to supply the small intestines with a kind of fluid resembling saliva, which, with the bile, is essential to the promotion of digestion and nutrition. The jejunum first, and then the ileum, follow, and are a continuation, forming the remaining portion of the small intestines. They terminate where they enter the cæcum.

The *cæcum*, or first part of the large intestines, is a large *cul de sac*, in which the small intestines terminate in such a manner as to form a sort of valve, which prevents the return of the contents of this part of the bowels into the ileum, or small intestines. In the cæcum commence those changes in the contents of the intestines which constitute their fæcal characters. The cæcum lies in a transverse position, just over the right groin, and thence begins to ascend, assuming the name of ascending colon.

The *colon* proceeds (under the name of ascending colon) to rise as high as the liver

under the right lobe of which it forms an angle, and turns towards and across to the left side, being here denominated the arch of the colon, or the transverse colon. It afterwards again forms an angle under the left curvature of the stomach and the spleen, and then descends towards the upper part of the left hip, under the title of the *descending portion of the colon*, where it takes another remarkable and sudden turn inwards and upwards, which is termed the *sigmoid flexure of the colon;* then once more turning down, and inclining towards the middle of the pelvis, it is named the *rectum*, and terminates at the *anus*.

The *food*, from the moment it is taken into the mouth, follows exactly the course of the alimentary canal now described, and in different portions of this canal undergoes those changes requisite to the extraction from it of the nutritive parts; and this having been effected, the fæcal portions, together with various worn-out and hurtful matters, secreted from the glands and surfaces of the

bowels, are discharged from the body at the termination of the canal.

The *drink* or fluid taken, as well as the food, passes into the stomach, mixes with the food, and assists, with the juices of the stomach, to form that pappy mass called chyme, from which the chyle, or nutritious portion of the food, is formed, and does not, as is frequently conceived by those who are ignorant of anatomy, descend in a different channel; but is carried from the stomach and intestines, by absorbing vessels, into the blood, from which it is again separated by the kidneys in the state of urine, which, passing from the kidneys, by means of two ducts, to the bladder, is there retained until enough is accumulated to distend this organ and excite to its evacuation; but a more particular description of this will form the subject of my next Chapter.

It is to that portion of the digestive tube denominated the large intestines, that I have more particularly to call attention; and it may be here observed, with what wonderful

art the Supreme Contriver of all things has arranged, at the division between the ileum or termination of the small intestine, and the entrance into the cæcum or large intestine, that a valve should be placed effectually to prevent the regurgitation of the fæces into the upper part of the intestines,—a circumstance which must otherwise have rendered us all the object of fetid disgust to each other.

The cæcum, or bag-like part of the intestine, and the ascending portion of the colon, are the seat of almost all those difficult diseases which the newly-invented apparatus are calculated to overcome, and which, if neglected, form the basis of numberless incurable maladies that soon prove fatal, or render the wretched patient miserable for life.

I now proceed to describe more particularly the changes that occur in the character of the food in its progress through the alimentary passage; and I shall here observe, by the way, that it is of the first and utmost

importance that the food should be thoroughly masticated, not only on account of the division or breaking down of the particles or fibres that constitute it, but also that it should be well mixed with the juices of the mouth, without which it cannot be in a proper state to be received into the stomach, there to undergo the next change, which is chiefly effected by a powerful dissolving fluid secreted from its coats, denominated the gastric juice. This fluid, assisted by a certain action of the stomach itself, converts the food into a kind of pulpy mass called *chyme*, which passes through the pylorus into the first small intestine, or duodenum.

It is when this mass is incorporated with the bile, conveyed by means of the small pipe or tube, about the size of a writing-quill, emerging from the liver, and entering the gut, and with the secretion from the pancreas, that the nutritive portion of it is separated. To this portion, for the purposes of description, the name of *chyle* is given; and this substance, as it continues to be formed during

the progress of the change through the intestines, undergoes the complete process of filtration, as the pure fluid, or nutritious parts, are taken up and conveyed into the blood for our daily nourishment, by a number of little vessels that perforate the intestine for this wise and wonderful office, and which are called absorbents or lacteals. The coarser or gross materials are propelled onwards till they arrive at the large intestinal bag called the cæcum, or commencement of the colon, where they first assume a more consistent or figured appearance, partake of a peculiar fetid odour, and are, by the peristaltic, or spiral-like action of the intestine itself, propelled up the ascending or *difficult* portion of the colon, then across the transverse and other portions, till they arrive at the last great gut, the rectum, where they remain, till, by the quantity, its coats are stimulated to the last or expulsive effort, which, in order to be in a perfect state of health, requires to be performed at least once in every twenty-four hours.

It must here be observed in respect of the absorbing vessels, that they are not confined exclusively to the small intestines, but that they pervade every part of the whole tube, only that they differ in number and office according to the duties allotted for them to perform. In proof of this it may be mentioned, as a well-known fact, that if tobacco fumes are injected into the rectum (as is sometimes done in strangulated hernia), the patient shortly becomes comatose from the narcotic principle of the herb.

With regard to opium and other drugs of the soporific kind, we are also well acquainted with similar results. In one case I have had the opportunity of injecting a quantity equal to eight glasses of gin and water, as it is commonly mixed for drinking at taverns, and in one hour afterwards the man was in a complete state of intoxication. His statement to me was, that four glasses of liquor thus mixed was as much as his head could bear when taken into the stomach. I should also refer to the administrations of soups, arrow-

root, &c., by which patients have been supported for many weeks together by means of injections. These are proofs sufficiently strong to warrant the assertion, that lavements are indispensable in medical practice, especially as every practitioner is thoroughly aware that he does not possess absolute authority over the power of digestion and of intestinal action, even if he calls in aid his whole catalogue of purgative medicines, down even to the far-famed croton oil,—a remedy that has been said to succeed when all others have failed,—without having recourse to injections. At the same time I beg to be understood, that I set as high a value on purgatives as any man in the profession, and am persuaded of their important influence in the treatment of numerous diseases,—that they are absolutely necessary in medical science; but it is of their abuse, not their use, that I complain. It is a well-known fact, and daily experience goes to prove, that our churchyards are the receptacles of thousands who fall a sacrifice to the implicit confidence

placed on this class of medicines, unassisted by other means, especially by the use of lavements. Such, indeed, has been the mad rage for the purchase of patent drastric pills and powders, that the stomach and bowels have had their vital energy entirely destroyed, and the necessity for a daily repetition, as well as additional strength, has been increased by every repeated dose, until the bowels are rendered callous to all remedies, and the case at last terminates in irremediable or fatal disease, frequently in most obstinate constipation, cholera, violent colic, inflammation, iliac passion, gangrene, and death.

It is the same with purgatives as with stimulants. Stimulants require to be repeated: if a man gets intoxicated to-day, he wants a dram to-morrow. If a person takes a powerful purge to-day, he will require another to-morrow, or no satisfactory relief will be obtained; and most persons are acquainted with this fact. Independent of this, the stomach and bowels are kept in a constant

state of irritation and uneasiness by purgatives; and, in weak constitutions, numerous are the diseases produced by this mode of practice; some of these I shall name as particularly caused by aloetic purges, and of which I shall presently take further notice when speaking of the treatment. I allude to piles, fistula, and stricture in the rectum; and why should we punish ourselves by soliciting or aggravating disease, when we possess the ready, convenient, safe, and efficacious means in our own hands, not only to avert evil, but to improve our health? I allude again to the use of lavements, both to assist the operation of mild aperients, as well as for the purpose of mollifying and mechanically removing hardened collections of feces. Nor should it be overlooked, that many of the difficulties that arise in weak constitutions to digest the daily food, and to effect the necessary relief required by nature, do not proceed (as is endeavoured to be supported by some authors) entirely from the large intestines; but that the want of proper

mastication, the deficiency of the juices of the stomach, the obstruction to the course of the bile, the decreased tone of the coats of the stomach and small intestines, the absence of sufficient exercise, depression of spirits, anxiety of mind, and various other causes, combine to render digestion incomplete before the large intestines are called into duty ; and it is therefore, that purgative remedies, in the hands of experienced medical men, are, in a great degree, essential to the life of the patient.

The annexed Plate represents the body cut open, in order to display the Heart, Lungs, Kidneys, Bladder, Blood-vessels, &c., &c.

REFERENCES.

A. Left ventricle of the heart.

B. Right ventricle of the heart.

C, E, F. Arch of the aorta.

D. Aorta descendens . { To supply the abdomen and lower extremities with blood.

G, G. The kidneys. To secrete the urine from the blood.

H. Urinary bladder.

I, I. Ureters . . . { To convey the urine from the kidneys to the bladder.

K. Pulmonary arteries { To convey the blood from the heart to the lungs.

L, L. The Lungs.

M. Veins of the lungs cut off: they are to convey the blood from the lungs to the heart.

N. Right auricle of the heart.

O, O. Ascending vena cava { Returns the blood from the lower extremities.

P. Emulgent, or Renal, arteries.

Q. Descending vena cava { Returns the blood from the head and upper extremities.

R. Left auricle of the heart.

S. Intestines cut off, to show the kidneys and blood-vessels.

T. Trachea . . { Or windpipe, from the back part of the mouth, to convey air to the lungs.

U, U. Ribs sawed off to expose the heart and lungs.

V. Cavity of pelvis.

CHAPTER II.

ON THE SECRETION OF URINE AS CONNECTED WITH THE CIRCULATION OF THE BLOOD.

HAVING alluded in the preceding chapter to the erroneous notions of persons unacquainted with human function, as to the separation of the fluids from the solids, I shall here endeavour to make the subject clear, by such general and plain descriptions as will be easily comprehended.

I have already said, that the *food* and the *drink* taken into the mouth, pass down *one* common passage (called the œsophagus) into the stomach; they are there mixed together and converted into a substance called *chyme;* this being propelled from the stomach into the intestines, is incorporated with the *bile;* after this union, there is separated from the

mass a white fluid, to which is appropriated the name of *chyle;* this it is which imparts all the nutritive qualities to the blood, into which it is carried by the absorbing vessels destined for this particular purpose; while all the coarse refuse materials are propelled on and downwards through the intestinal passage.

As it appears, then, that the nutriment is conveyed into the *blood* to be distributed to every part of the system for our continual support, it will now be necessary to show and describe some of the changes which this vital fluid undergoes in its general route; and the annexed plate, with its references, will assist in this object.

The *heart* is a large, fleshy, muscular viscus, divided into four chambers or cavities, two large and inner called the *ventricles*, and two smaller and outward called the *auricles:* it (the *heart*) is the fountain of the *blood*, which is propelled to every part of the system by means of blood-vessels called *arteries;* these are largest as they emerge from the heart, and gradually diminish in size, rami-

fying in various beautiful and minute sprigs till they arrive at the remotest extremities, where they are so small as not to be seen without the aid of a microscope; it is at these terminations, after having fed and nourished every minute part as they proceeded, that they empty themselves into a corresponding set of vessels called *veins*, whose office it is to convey the blood back again; these increase in size as they leave the extremity and approach the heart. Either of this set of vessels would appear, if dissected away from every other part, like a beautiful tree with all its ramifications: well might we exclaim with the holy penman, that 'We are fearfully and wonderfully made!'

Through these vessels the blood is incessantly flowing, and constitutes what is called the *circulation*.

I have now to direct attention to another kind of circulation, and to show the offices connected therewith.

The Blood, as well as being conveyed to every part of the system for its nourishment, is

also conveyed to the *lungs* by another set of arteries emerging from the *heart*, and returned thereto by corresponding veins, after having imbibed there by respiration a certain principle from the atmosphere necessary for its purification.

It is, then, understood that there are *two circulations*,—the one I will call the systematic, the other the pulmonary circulation; there is an *auricle* and a *ventricle* on the right side; and an *auricle* and a *ventricle* on the left side of the heart.

The right performs the second or *pulmonic* circulation, the left performs the first or *systematic* circulation.

I shall now refer to the references in the plate; first the large descending vein Q, called the *descending vena cava*, conveys the blood down to the heart from the head, neck, arms, &c. The *ascending vena cava* O, returns all the blood to the heart from the lower extremities; and the meeting of these veins in the heart, by becoming a little bulky at their union, form that portion of the

heart called the *right auricle* N. When the *right auricle* contracts, it forces the blood into the *right ventricle* B, which, being stimulated by the quantity of the blood, also contracts and forces it through the pulmonary artery K, which divides right and left, and proceeds into and ramifies through all the cells of the lungs.

Secondly, the corresponding veins M return the blood (that has *been to take the benefit of the fresh air*, or to discharge the hydrogen and carbon, and to take in or absorb, in its stead, oxygen and caloric) to the left *auricle* of the heart R, which, contracting, fills the left *ventricle* A, the muscular force of which propels the blood to its final destination.

The *blood* being universally distributed by the large trunk, the *aorta* C, E, F, which, with its branches, supplies the whole system, the superior or uppermost branches are branches from it, and supply the head and upper extremities, which is also returned to the heart by corresponding veins.

Thus it may be understood how the nourishment is conveyed to every part of the body by means of the blood, how the blood is returned again to the heart by the veins, then propelled on to the lungs to be purified, and from thence back again to the heart, ready for fresh circulation through the system.

I now proceed to state in what manner the blood is *cleansed* of its thinner or superfluous fluids by means of the kidneys. These are two somewhat oval viscera, G, G, situated behind the intestines, one on each side of the spine; and are of a dark red colour, resembling a bean in shape :—the seed of one kind of this vegetable so approaches in figure to these organs as to be called the kidney-bean.

The kidneys communicate with the aorta, D, by means of arteries, called the emulgents, P, P, which ramify most beautifully in these organs ; and it is through this passage it secretes or pours out (by its peculiar power for this employment) the poor and useless fluids from the blood ; which it then propels on to the *bladder*, H, through two ducts called the

ureters, I, I, (as will be seen in the plate,) and which pierce the *bladder* at the lowest part near its neck, or common outlet. This separated fluid is known by the name of *urine*, which, accumulating in this vessel (the *bladder*), stimulates its coats to contract and expel it: this operation should be performed at least three or four times a day.

CHAPTER III.

OF INDIGESTION AND COSTIVENESS.

It is not my object to treat on all the diseases connected with indigestion and costiveness in this small work, but to refer to those that more immediately require the particular mode of practice here advocated; and I shall beg to call the attention of my readers to that state of constipation which is induced in consequence of accumulation of hardened fæces, or scybala, collecting in the cæcum, or first of the large intestines. By reference to the plate it will be easily perceived, that the office imposed on these parts, particularly at the *ascending* portion of the colon, must, at all times be much more difficult than in any other part of

the alimentary canal; inasmuch as it has to overcome the obstacle which the gravity of its contents opposes to its action, or, in other words, having to perform the whole of its task up, instead of down hill; and that the digested matter which hitherto had been of an accommodating texture, has now assumed the character of a more dense compact substance, and which, in many cases, has been accumulating perhaps not only for many days but many weeks, rendering the difficulty greater every day, as the bulk increased and the peristaltic action of the intestine decreased; whilst, probably, at the same time, *some small liquid evacuations* has been daily passing, which served only to lull the mind of the patient, make him careless as to remedies, and finally lead him into an irrecoverable state of ruined health.

This is one of those cases where I shall attempt to direct the attention of my reader to the necessity of using lavements, as, with the proper apparatus, and a sufficient quan-

tity of warm water (blood warm*), say from one to two quarts, we possess not only the means of softening the detained fæces, but by the power possessed by these instruments, we are enabled to excite gently the muscular fibre of the gut, by which its energy is restored, and the power of expulsion again brought into action.

This state of the bowels, although not constituting the entire cause of indigestion, is by far the most frequent, and most to be dreaded, and may generally be ascertained by the following symptoms:—confined state of the bowels, difficulty of breathing, hardened state of the abdomen, flatulency, nausea, headach, fever, fetid breath, &c. &c.

Another cause of indigestion is the want of attention to a proper system of dietetics; indulging in too great a quantity of corned or dried meats, sometimes cooked to hardness; too much solid food, without a propor-

* About 100° of Fahrenheit's thermometer.

tionate quantity of seasonable vegetables, and a sufficiency of mild and proper fluids; indulging too much in astringent wines; and not adopting a regular period for meals; and sedentary occupations, &c. &c. Costiveness may be considered, from whatever cause it arises, to be the forerunner and the foundation of most disorders that render our lives wretched or terminate fatally.

Females, in particular, should be careful to attend to those causes which are liable to derange their digestive organs, as they have much more to encounter, as affects their general health, than the other sex, and less constitutional power to resist the havoc of disease; and whilst I refer to the habits of females, I must not omit to mention that false notion of delicacy which so much prevails in boarding schools, both as far as regards the confinement to study, and the dislike of its being known that the calls of nature require to be relieved. Owing to this, restraint is frequently imposed on the regular functions of these organs, which,

The commencement and cessation of the menses are times when females ought to guard against powerful drastic purges; but at these periods a mild aperient plan of treatment is necessary to preserve a regular state of the bowels, and, by rousing the inactive state of the digestive organs, which so generally characterizes both these periods, to prevent those intestinal accumulations which so often prove the foundation of numerous diseases, and often lead to a fatal termination. And here, again, I do most earnestly advise the daily use of a warm-water lavement, or other more active injection, as the case may indicate.

Without enumerating diseases, I scarcely know of any, even the most trifling, that do not depend as much or more on a proper action of the bowels, than on any thing that can be done besides towards their alleviation or cure; and in the healing art it forms the first and most important practice, which no one can with impunity neglect.

Most of the diseases of females, whether

at that delicate period when first the menses should or do appear, or during pregnancy, child-birth*; suckling, weaning, or when the menstrual discharge ceases, have their origin in constipation.

Such, then, appearing to be the consequences to which we are rendered liable by neglecting the state of our bowels, it becomes an object of serious reflection, to ascertain the best means to afford relief, and prevent those sufferings to which we are all exposed, and which, when such means are neglected, often lead to serious consequences.

* Ten cases out of twelve of death in child-bed may be traced to the ill effects of costiveness during pregnancy, at which time females are more liable to this disease than at any other period of their lives.

CHAPTER IV.

OF THE PREVENTION AND CURE OF INDIGESTION AND COSTIVENESS.

LET me observe, then, as I noticed in a preceding chapter, that as the food passes through the alimentary passage in twenty-four hours in the healthy subject, our duty is to take as much care as possible to protect our health, by attending to this state of the bowels, and preserving that regularity of their functions which is so essential to our present, as well as future, enjoyment of this life. As, from neglect, or from constitutional debility, or some other cause, we are liable to become subject to constipation; as the class of medicines called purgatives alone will not answer at all

times the desired effect; and as we are not acquainted with any other class of medicines that will do so,—I trust that the use of lavements will be more and more resorted to, they having been found uniformly the safest and most efficacious mode of relief. This recommendation does not arise from speculative notions, but from conviction and experience of their utility, derived from an extensive practice of eighteen years, during which time I have had many opportunities of remarking the great advantages derived from having constant recourse to them.

The following extract from 'An Oration delivered by Dr. Burne, before the London Medical Society,' will show the extensive and important utility of injections as a means of restoring the alimentary system to its natural state of activity:—

'An undue retention of the intestinal excretions is another source of disorder and of disease arising out of civilized life. It is produced by affections of the mind, by

indigestion, by inattention to the calls of nature, and by mechanic obstruction, from organic disease; which last is frequently excited by the retained excretions themselves.

'The undue retention of the excretions takes place in the large (or lower) intestines; for, until the excrementitious matter arrives here, there is no reason to believe that its propulsion is arrested, although it may be less quick at one time than at another.

'The undue retention of the excrementitious matter allows of the absorption of its more liquid parts, which is a source of great impurity to the blood; and the excretions, thus rendered hard and knotty, act, more or less, as extraneous substances, and by their irritation induce a determination of blood to the intestine and to the neighbouring viscera; which ultimately ends in inflammation and organic change of the bowel itself.

'It has, also, a great effect on the whole

system: it causes a determination of blood to the head, which oppresses the brain, and dejects the mind; it deranges the functions of the stomach, causes flatulence, and produces a general state of discomfort.

'In civilized life, then, the causes which are most generally and continually operating in the production of disorder and of disease, are, affections of the mind, improper diet, and retention of the intestinal excretions.'

The habitual and indiscriminate use of purgative drugs can only afford a temporary relief by unnaturally stimulating the digestive organs, which they exhaust of their secretions, and thereby render them incapable of performing, even with this repeated stimulus, their proper functions with the degree of energy requisite to support the body in health.

The great utility of lavements, or domestic clysters, the use of which has so long been practised in France, and almost every part of the continent, is at length so far established in the opinions of the medical pro-

fession in this country, as generally to form part of the directions of our most eminent practitioners to their dyspeptic or bilious patients.

An eminent physician, in his work on the means of obviating and treating the varieties of costiveness, speaking of intestinal injections, says, 'In no country of Europe is the class of remedies termed lavements or clysters so seldom used as in England. In France and Italy this remedy is preferred, in cases of costiveness, to the exhibition of purgative medicines by the mouth; and it is certainly very preferable to those cathartic drugs which disorder the organs of digestion, or hurry the chyle through the small intestines. In France, the lavement apparatus is deemed as necessary an appendage to the toilet as the tooth-brush or water-jug; it being common in that country for males and females to use an injection every forenoon;' and the same author adds, 'It has been said, and perhaps with truth, that the females of France are more healthy than

those of Great Britain, which is attributed by a late writer to their keeping "the intestinal canal in a regular state by the occasional and almost daily exhibition of a domestic lavement."'

The following observations are from the pen of the celebrated Dr. Baillie:—'Injections do not appear in this country so highly appreciated as they deserve, although on the Continent their advantages are extensively acknowledged, and they constitute no trifling part of the practice of medical men. It is remarkable that they are not in more general use, when we reflect how numerous are the complaints produced by a confined state of the bowels, and how quickly they are relieved by a removal of that cause. The occasional employment of injections is certainly the most convenient and comfortable way of obviating so frequent a source of misery and pain; and as injections neither produce temporary constitutional disarrangement, nor render the habit so accustomed to their use that they may not be at any time

discontinued, the same objections cannot be urged against their employment which are so often made to other remedies; whilst the simplicity of their formation, and the facility with which they can at all times be had recourse to, are arguments in favour of their adoption. In a medical sense, they are invaluable: during the attack of inflammatory disorders, and various other complaints to which the bowels are subject, when the stomach rejects medicines of every kind, and when all other remedies prove quite ineffectual, how often do we find a common injection of the most simple kind produce the most salutary results; and by unloading the lower bowels, by clearing a passage for flatulent collections, and by acting as a kind of internal fomentation to the whole disordered canal, suspend the most distressing irritation, and produce tranquillity and rest.

'In a domestic point of view, they are not much less important: and I speak with confidence when I state, that in all the cases

of *hemorrhoids* or *piles*, in which I have been consulted, and of *fistula*, for which it has been necessary to operate for their cure, I scarcely remember one which could not be ascribed to a long and habitual neglect of the bowels.'

By the injection of warm water merely, much good is to be done as respects regulating the bowels of those persons who are disposed to costiveness; and I can with confidence affirm, that if this plan is commenced in the incipient state of this and other disorders, and persevered in daily, gradually increasing the quantity of the fluid, it will, in nineteen cases out of twenty, completely succeed. If, from the colour of the evacuations, or any other symptom, it shall be discovered that the cause of the disease is in the stomach or small intestines, and the stomach shall be found too weak or irritable to receive aperient or other medicines, such medicines, in stronger doses, will have the same effect, to a certain degree, if given in warm water by way of enema, as when taken into the

A woman, a few years ago, died in one of the Borough Hospitals, who had been confined there for several months, complaining of severe and constant pain in or about the stomach, with a considerable hardness and enlargement on the upper part of the abdomen; her bowels were always much confined, and, without the aid of castor oil, no motions could be procured for a week or ten days, or more, at a time: this had been her state for some years. On examination of the body after death, the stomach was found to contain a large compact ball, in circumference nearly eighteen inches, which was so firm that it was difficult to divide it with a saw, and, from its peculiar colour and appearance, more difficult to determine its precise nature. On conversing with some of her relations, it was ascertained that the patient, who had always been of a costive habit, had accustomed herself, most mornings, to take in her tea a quantity of *magnesia*, considering this as the *mildest* and most *innocent* purgative medicine. And who would blame her?—who would not say

that this could do no harm?' This I will presently undertake to answer; but I must first observe, that all purgative medicines are not suitable for the relief of all intestinal or stomach complaints: for instance, aloes have very little effect on the stomach or small intestines, but irritate particularly the lower bowel, and are frequently the occasion of piles; rhubarb exerts its influence chiefly on the stomach; preparations of mercury have a specific action on the liver, &c. &c.; and yet they all purge, and so will a roasted apple or a French prune; and if the only object is to purge, either of the two latter would answer the purpose as well as the former, or any other perhaps of a hundred varieties more, each exerting their influence over different organs in different ways. It should also be recollected, that medicines act differently on the same persons, according to the dose administered: for instance, ipecacuanha, in very minute doses, acts as a sudorific; in large doses, as an emetic: antimonial medicines the same. Rhubarb, in small doses,

acts as a stomachic; in larger doses, as a purgative. Magnesia, combined with lemon juice, vinegar, or acids of any kind, acts as a brisk aperient; but, when taken alone, unless a sufficient quantity of acidulated matter exist in the stomach at the time, it becomes an *absorbent*. This was the case with the patient mentioned above; and the magnesia, instead of purging, collected from day to day in her stomach with the natural slime and moisture of its coats, which, acting like glue, combined it till it increased to the enormous size here spoken of, and ultimately was the cause of her death.

Thus I have shown that unnatural accumulations occur both in the stomach and intestines, and that they both arise either from neglect or mismanagement. Not that hardened substances such as I have mentioned often form in the stomach or bowels; on the contrary, I believe that they are of rare occurrence. I only refer to the above instance in order to show what injurious consequences may, and sometimes do, arise from the too

common practice of relying for relief on what are termed *common, innocent, mild,* and *safe remedies.*

But collections of hardened fæces in the large intestines, such as I before detailed, are unhappily met with in the daily walk of every medical practitioner; and it is high time that the attention of the profession, as well as of every individual, should be aroused to seek relief by such means as are most likely to succeed for the prevention or cure of these maladies.

Before I enter on the mode of treatment I intend to recommend in cases of this sort, it will be proper to observe, that the colon (independent of the obstruction arising from its natural *ascension* on the right side) is divided into several chambers by means of transverse bands, each of which forms a ready receptacle for the lodgment of the excrementitious matters, and which, in the absence of sufficient peristaltic power, often becomes much loaded, and permits the fluid, or thinner portions which have been stimu-

lated by the impetus of purging doses, to pass on without interfering with these retentions.

Again, with regard to the accumulation of fæces in the large intestines, I am reminded of the case of Miss P., a highly respected lady, who was placed under my care in Monmouthshire, the subject of diseases of the most complicated and distressing nature. She had been confined to her bed for five or six years, and attended, during that period, by men of the highest medical character. On my first visit to her, I was led to make every inquiry into her sufferings; and amongst the many that were described, I was directed to a large painful swelling at the lower part of the right side of the abdomen, somewhat of an oblong form, and which had been described to her as being a rupture: of this, however, I had every doubt, and on learning further that no figured motions had been passed for a long time, I entertained the belief that she had stricture of the rectum *, which had caused a collection

* The prediction turned out, on *post mortem* examina-

of fæces, and with this view commenced the practice of administering twice every day an injection of warm water, with a small portion of olive oil in it, beginning with half a pint, and gradually increasing the quantity, till, after a few weeks, I was enabled, by means of the newly-invented apparatus, to throw up as much as from three to four quarts at a time, and it was not till the period arrived that I could inject about three quarts, that the hardened matter began to break down and come away piece by piece, day by day, the swelling and pain gradually diminishing, the parts becoming soft and natural, and the motions assuming a healthy appearance. Notwithstanding the favourable change in this particular, the lady fell a victim to other maladies affecting the vital organs, from the pain of which, together with long-protracted confinement, general wasting of the

tion, to be correct, as there existed a thickening of the coats of the intestine, which had considerably reduced the natural passage, and had partly contributed to the above-described collection.

body, loss of appetite, &c. she ultimately sunk. I cannot leave the relation of this case without recurring to the fact, that remarkable delicacy had characterized this lady from her earliest years, and that she would not allow it to be known, even to her own sex, that her bowels required relief, and not even her own mother was ever permitted to be acquainted with those facts. I have no hesitation in affirming, that all her diseases in subsequent life, as well as her untimely and lamented * death, entirely originated in neglecting the state of her bowels.

In cases of the above kind, where much tumefaction and tenderness are present, it will be well to have recourse to fomentations with poppies and chamomile flowers; and, if much pain be felt, I should advise the application of from fifteen to twenty leeches on

* The sufferings of this amiable and pious young lady excited the sympathy of persons of every rank for miles round her residence. Her virtues will live for years to come in the memories of the wide circle of acquaintance who lament her untimely death.

the part, again applying the fomentation on their falling off: this practice, with the use of warm lavements, and repeated small doses of castor oil, will be found to be the most advantageous.

Again, independent of the injury sustained by the bowel itself in consequence of these unnatural collections, I must remind my reader of the mischief they impart to its neighbouring organs, especially the liver, kidneys, small intestines, stomach, bladder, uterus, great blood-vessels, &c. by occasioning pressure on those parts, interrupting the circulation, impeding the passages, producing irregular breathing, &c.; and, indeed, it would not be possible to enumerate all the evils and all the diseases, which, directly or remotely, proceed from indigestion and retention of fæcal matters in the bowels; nor do I think I shall go too far, if I venture to affirm, that seven-eighths of the diseases to which these organs are liable (independent of those produced by accident) depend on these causes.

One more noxious condition proceeding from inattention to the bowels I shall allude to, which is the fetid and morbid state of long-retained matters, the particles of which are taken up by the absorbent vessels and carried into the blood, proving highly detrimental to the frame, and injurious in all stages of illness, particularly of fever, where every thing that is pure and free from putrescency is of vital import.

I shall next inquire of my reader, how he is to know, or by what can he determine, as to a healthy state of the digestive organs? and I reply for him, that as the wheels of a time-piece are necessarily depending one on the other, in order to effect their combined result on the face or dial; so are the abdominal viscera one part depending on another, and influencing every part of the human frame; so that it is scarcely possible for any one part to be materially affected, without experiencing the result by some apparent deviation from health, either of pains or aches, want of rest, falling off of the appetite,

pale or flushed countenance, fetid breath, or more than naturally fetid evacuations; weariness, drowsiness, dryness or unusual moisture of the skin; cutaneous eruptions; cold chills, cold feet, flatulence, headach, nausea, dimness of sight, unusual thirst, dry and white tongue, quick pulse; with many other symptoms that always clearly indicate bodily disorder. Besides these, much is to be learned from the colour, consistence, odour, and quantity of the motions, which are soon known by an observing person.

With regard to the quantity of the fæcal discharge, little can be said, as this must depend on a great variety of circumstances; for instance, in the first place, on the quantity of food consumed, whether most vegetable or animal: next, as to the exercise taken; for in proportion to this generally depends the quantity of vapour or perspiration that is expended daily, and which being supplied by the food and drink, must necessarily more or less diminish the bulk of that which is to pass off by stool.

And again, it must depend on the state of digestion, as to what part or parts shall be kept back, from the want of peristaltic power or other causes. Then as to colour: much has been said on this subject, more than can be depended on; for although it is generally a useful guide, still it is likely to lead us into error, as the colour depends very much on the nature of the food we take, the age of the patient, and the greater or less quantity of bile mixed up with it. An eminent lecturer in the Borough Hospitals used to observe 'that the stools should be as yellow as a guinea;' but a dose of rhubarb will, under all circumstances, turn them yellow; and generally a dose of aloes, or steel, will turn them black. So that if we entirely depend on the colour, we may be misled, and be induced to resort to improper treatment.

Again, as to the quantity evacuated, it will be well to keep in memory that only one-fifth of the food (by weight) that we take, passes off by stool,—the larger part by

sensible and insensible perspiration. This I observe, that my readers may not be searching for more than they can find, and be led to disappointment or perplexity.

The difficulties, then, that arise, to enable persons uneducated in medicine rightly to judge as to their state, should warn them of the danger of trusting too much to their own opinions; at least, I say to those who exercise a system of medicine on themselves, without the opinion of a professional man, forget not 'that a little learning is a dangerous thing.' Rather then, I should say, let your practice be of that safe kind, that you shall have no consequences to dread; and I am confident in the recommendation I so earnestly give of depending on simple injections, which have removed already so many diseases, without the possibility of injury; for, by this means disease is not only prevented, but cleanliness promoted, and the necessity of disagreeable drugs much less called for.

CHAPTER V.

OF DIET IN INDIGESTION AND COSTIVENESS.

Before entering on a list of diseases wherein the particular practice of using lavements is necessary, it will perhaps be thought that I should say something on dietetics. In doing this, I shall confine myself to the recommendation of that class of alimentary substances which is likely to be best suited to the digestive organs, placing in opposition to them those also of an indigestible or impure character.

I think I need not attempt a fuller explanation of the term digestible, than by saying, that substances easily dissolved in the stomach, and rendered fit and proper for the nourishment of the blood within the usual

time, and without difficulty, are so denominated, and *vice versâ*.

It is impossible to lay down a correct scale as to what sort of food, or in which way cooked, or whether animal or vegetable, hot or cold, fat or lean, dry or moist, &c., may prove most digestible on all occasions, and in every case, without a previous knowledge of the constitution, habits, age, sex, &c. of the patient; and therefore I can only make some few remarks on those substances which generally appear to yield the most nutritious matter, with least exertion to the digestive apparatus. And I believe I cannot do better than first to refer to the article of bread, or, as it has been not improperly called, "the staff of life." Two opinions cannot be entertained as to the nutritious qualities of this leading article of our food; whilst we know that it forms the principal article of sustenance for the healthiest of our isle, the country labourer and his family—persons who require not a dose of aperient medicine for years together;

and if they require not the use of medicine, they need not ask if this food is digestible as well as nutritious: that *brown* bread is a laxative, these people are also fully aware of from experience, the laxative part being the bran, whilst the finer part of the flour is of a mucilaginous, starchy, binding, astringent, nutritive quality. Of potatoes, I should urge their nutritious, as well as their digestible nature, on the same grounds; that the poor of our sister kingdom (than whom a finer race of people never lived) exist in *good health* almost entirely on this vegetable. Much, however, is to be said as to the method of cooking them, and to the manner of cultivation.

Potatoes that are waxy are hard and difficult to digest; whilst those that are, on the other hand, light and floury, partake of most of the ingredients of wheat, and are found to agree with the human stomach; and it is a well-known fact, that cattle thrive and fatten as much or more on this than on any other vegetable.

Turnips are a useful, harmless laxative, affording but little nutrition. Carrots are hard and binding. Peas* and beans are extremely indigestible, and should be avoided by delicate stomachs. Green, uncooked vegetables, of almost all kinds, are indigestible, such as lettuce, radishes, &c.

Cabbage, when young and in season, and well boiled, considerably assists the concoction of animal food; and it is at all times better that a combination of animal and vegetable substances should compose our diet.

Of animal food, venison, game, mutton and beef, take the lead, as most nutritious and most digestible; whilst veal and lamb should be taken by those only whose power of digestion is strong, or who take much exercise in the open air.

* It is not unfrequent for death to ensue in consequence of spasmodic affection of the stomach, induced by eating green peas either not sufficiently cooked, or not broken down by mastication.

Fish, of almost all kinds, yield a large proportion of nutritious matter; whilst, at the same time, they are for the most part extremely indigestible; and it has been one of the errors into which medical men have been led, for want of studying the properties of this kind of food, when they have so repeatedly recommended it to their recovering patients as a light and proper food. Not so with oysters; they are both nutritious and easily to be digested. Salted dry meats, pickles, new cheese, and pastry, are all indigestible, as well as nuts of all descriptions, and fruits of the plum kind. Currants, with raspberries, apples, and mulberries, are all easy of digestion; and so are gooseberries, if skinned, which all fruits should be subjected to. Milk is nutritious; but when boiled is indigestible and binding. The same may be said of eggs, if boiled too long. Poultry (with the exception of geese and ducks) are generally well suited to weak stomachs.

Persons whose stomachs are weak, or in

whom the alimentary canal and other digestive organs are incompetent to the healthy performance of their offices, should be careful to avoid, as much as possible, such kinds of food as are indigestible, as new bread, new cheese, pork, heavy pastry, hard-boiled eggs, pears, plums, nuts, carrots, and the skins of fruit, &c. &c.; but they should, on the contrary, endeavour to select such as is best adapted to the impaired state of the organs at these times.

Whilst adverting to this subject, I would remark, that the practice of drinking lukewarm water with dinner has been found one of the best remedies to assist the stomach in the act of dissolving the food; whereas it is a well-known fact, that weak persons frequently, after taking a glass of cold beer at this meal, suffer greatly from troublesome eructations, independent of being deprived of the pleasure of the remaining part of a good meal, in consequence of the natural cravings of the stomach being checked by the sudden

contact with the cold liquor. And again I must observe, in order that the food should go through the regular process of concoction, in such manner as to be most beneficial to health, persons should never sit down to their meals immediately after any violent exercise, or when the body is heated beyond its usual state, or immediately after any strong passions of the mind; for, in all cases of unusual excitement, the stomach is sympathetically affected (as in sea sickness the motion of the brain induces vomiting).

Again, be careful to take food at a moderate degree of heat; for the nearer we adapt it to the temperature of the blood, the sooner the process of digestion commences, as the solvent power of the juices of the stomach have no effect till its contents are at a proper standard of heat: therefore if the food is too hot, all is at a stand till it becomes cooler; and if too cold, till it arrives at the natural heat. Also, by taking food or drink too hot, there is danger of inducing a determi-

nation of blood to the stomach, and probably inflammation may follow *; and if they be taken too cold, they are equally liable to interrupt the circulation of the blood in the vessels of the stomach, and thereby weaken its tone and power to perform its duties.

A suitable *proportion* of *drink* with our food is also necessary for the purposes of digestion, as must on reflection appear to every thinking person; for it does not require much knowledge to make it appear, that the solid food we take is fitter for the duties of the stomach when it is already softened down by fluids, than in its solid state. As the natural secretions of the stomach only flow gradually, it must be a work of some time before a sufficient quantity of moisture can be applied for a large

* The author witnessed the death of one of his patients, an elegant and highly-accomplished young countess, who sacrificed her life by imprudently drinking a cup of very hot tea.

mass of beef, bread, potatoes, pudding, cheese, &c.; and consequently we observe that such meals, taken without a moderate quantity of fluid, are long in being digested, and tend to weaken the energies of the stomach, by imposing upon it too great a task.

I must, however, here observe, that I have seen the ill consequences (and experienced them too) of taking a large draught of beer, or other fluid, immediately before, or at the commencement of a meal. This practice must be avoided, as it generally destroys the appetite for some time, and weakens the secretions of the stomach, instead of softening the more solid substances taken as food, and rendering them more suitable for digestion.

Soups, broths, and jellies, will form the last, though not the least in importance, to be spoken of. It is a current belief, and a sort of popular obstinacy prevails on the subject, that the nutritious as well as digestible properties of animal food reside

more abundantly in the jelly-like matter, or soups, that are obtained from them in consequence of boiling, than in the meat itself. Without entering at all into a chemical explanation of the changes animal substances undergo by this process, I shall merely refer to a fact opposed to this doctrine, and which I think must entirely set the matter at rest, in the views of those who honour me with a perusal of my little work.

Some few years ago, soon after the Penitentiary was built at Millbank, and had become inhabited, it was found that a great number of the inmates became sick, and that almost a daily death followed, and no one, not even medical men, could account for the cause; but it was generally believed that the lowness of the situation, or the dampness of the building, must have contributed to these disasters. Much discontent prevailed; many were the inquiries made; and the subject of removing the building, which had cost an immense sum, was seriously spoken of. A committee was appointed by the

House of Commons to investigate the matter; the building was surveyed in all its bearings; the drainings and ventilations viewed; the domestic arrangements and food scrutinised; the clothing and bedding examined. The medical department received the advantage of a sub-committee of physicians, to inquire into the nature of the diseases, and cause of death, &c. Nothing, however, transpired to throw that light on the subject that would enable them to come to a satisfactory conclusion, and they met again and again, until the happy suggestion was at last made, of trying what could be done by a change in the nature of their food, particularly as it regarded the mode of cooking it. Now I should first observe, that the prisoners had been allowed, both with a view to economy, as well as to their personal comforts, a large proportion of soup for their daily support, prepared, I believe, from the ox cheek (certainly the best part of the animal for that purpose). They had soup for breakfast, soup for dinner, and, I be-

lieve, soup for supper,—good in quantity and quality; and this, with a *small* portion of meat, and a *small* portion of bread, with a few vegetables, formed their usual support.

I say, the happy suggestion was made, of trying what could be done by allowing the meat to be the *larger*, and the soup to form the *smaller* portion of their daily food, on the belief that the *fibre* of the meat was best, as naturally suited to the human stomach, I mean, of course, when properly combined with the larger proportion of seasonable vegetables; the result proved successful. The patients recovered; the place became healthy; and it was found necessary, and has ever since been, to the honour of our government, persevered in. I have given mere matter-of-fact statements, to show what kind of aliment is best adapted to the healthy condition of the digestive organs, without going into the labyrinth of unnecessary and lengthened explanation: suffice it to say, that the

choice I have selected may generally be depended on as the best, in most conditions and varieties of circumstances to which man is subject.

Thus I have gone through, briefly, the several topics connected with the operation of using lavements, having first congratulated my readers on the fortunate discovery of the improved apparatuses for the purpose, contrasting the new with the old means, and endeavoured to prove this practice as most essential to the cure of diseases. I have gone on to give the descriptive outlines of the digestive organs, together with a sketch or drawing of the same. I have also shown which of those organs are most subject to disease, as depending on indigestion, and have proved why they are so, in what manner this is effected, and how the constitution suffers in consequence. Here I have taken a view of the changes that the aliment undergoes in the progress of digestion, how it sustains life by imparting

its nutritious qualities to the blood, whilst its impure dregs are separated from it, and expelled as useless. Having described the existence of a set of vessels called absorbents, I have shown that by their use life can be sustained for a long period, by means of injecting the intestines with nutritious matter; as in cases where diseases of the mouth, throat, or stomach, have prevented the swallowing of food; and that medicines injected in the same way, exert also their beneficial effects on the system, as though they had been taken by the mouth. Next to this I have denied the influence of purgative medicines at all times to perform the intentions of the practitioner, have spoken of some of those diseases where this class of medicines is injurious, and shown the advantages derived from substituting the use of lavements and injections.

I have also accounted for, and named a variety of the causes inducing derangements of the digestive organs, and shown their actual as well as sympathetic influence

over those disorders. After this, I have endeavoured to prove that some of the difficulties that impede digestion and the alvine excretions arise from the position of the colon, together with the bags or pouches therein contained, forming receptacles for excrementitious matter; and I have endeavoured to show how these difficulties may be overcome by means of habitual injections of warm water. Next to this a proper attention to dietetics, as most conducive to the healthy state of the digestive apparatus, regulated according to our habits of life, age, exercise, &c. has been adverted to.

The attention required by females, in particular, to watch the progress of digestion, as connected with so very many delicate circumstances, on which the comfort of their whole lives greatly depends, has been stated; with hints to mothers, school-mistresses, and nurses, on this most momentous duty; and I have recorded the death of a female in child-birth, actually proved to be in consequence of accumulations of fæces in the

large intestines, which brought on mortification in the parts; and have shown how this is to be prevented, ascertained, or cured.

A second case I proceeded to record, of a person having taken daily *only a little magnesia*, which, accumulating to a large lump or ball, impeded digestion and irritated the stomach, and ended also in death; here I advised my readers not to trust too much to their own judgment.

I have, in a brief manner, gone on by endeavouring to explain the different effects of purgative medicines on the constitution, in proportion to the quantity administered, and proved that the want of this knowledge is dangerous to domestic practitioners. I again gave a decided case of the benefit derived from warm-water injections, in allusion to a young lady, a patient of mine, in Monmouthshire, whereby an enormous accumulation was broken down and carried away by this simple means; and I showed the danger of indulging young females in *too* nice a

feeling, stating the necessity of their obtaining daily relief from the bowels. Having stated thus much, I proceeded to point out the inconvenience to which the stomach, liver, kidneys, &c. are subjected, by the pressure of the distended intestines against them, interrupting their natural duties. I referred to the leading symptoms by which we are to discover the unhealthy state of our digestive functions, alluding to the colour of the motions, and various unhealthy appearances to which the countenance is subject, as well as very many painful effects produced, some of which I have enumerated. I have also lightly and superficially touched on the quantity of alvine evacuations usually passed by the healthy subject: not that this can be a certain criterion as to what ought to pass, nor that we can accurately determine by it as to the process of digestion being complete or incomplete, as the larger portion passes off by the pores of the skin. I have not omitted either to remind persons of the danger in

which they place their lives, by trusting to their own judgment in cases of medical treatment, of which, generally speaking, they must be more ignorant than of any thing beside; and I trust this hint will put them on their guard. Only let them remember the case of the old woman and her pennyworth of magnesia.

I have sufficiently urged the use of warm-water lavements; and in doing this, I have shown the many advantages arising from this practice, when, on the contrary, I could find none against it.

In treating on the diet (on which subject I only lightly touched) best suited to the state of the patient under various circumstances, habits, age, &c., I did not refer to the general observations, which will be found in a subsequent chapter, and in which I have divided the alimentary substances, so as to convey the soundest principles derived from experience, and to render them well understood. The cases given in illustration will serve to remove those prejudices which have

so long prevailed in favour of some kinds of food, and against other kinds, and which are calculated to mislead and run us into (perhaps) fatal error.

CHAPTER VI.

OF THE USE OF LAVEMENTS IN VARIOUS DISEASES.

It will now be my object to point out some of the principal diseases for which I recommend the use of the apparatus for lavements; and first, those that are referable to the injection of warm water only, and which are likely to be alleviated by this simple means, without the use of medicines.

1. To those of sedentary habits, who are generally costive.

2. Habitual costiveness, without any apparent disease.

3. Suppression of the menses.

4. Pains in the head, and inflammation of the eyes from cold.

5. Fever; with a view to remove putrescent matter.

6. Dysentery and inflammation of the bowels.

7. Inflammation of any of the organs of the chest and abdomen.

8. Gripes of infants during dentition.

9. Stricture of the rectum (thrown up in large quantities twice a day, and retained as long as possible.)

10. Stone in the bladder.

11. Stone in the ureter.

12. Spasmodic affections.

13. Retention of urine.

14. Fistula and piles.

15. Irritation of the rectum.

16. Scalding of the urine.

17. After intoxication.

18. Fatigue of body and mind.

19. Getting wet, particularly the feet.

20. Itching about the anus.

21. Painful menstruation.

22. After menstruation.

23. During tedious or protracted labour.

The administration of cold water is, I think, a dangerous practice, as the parts are totally unaccustomed to the sudden

change of temperature it causes, although I admit the utility of it on certain occasions, as in some cases of hæmorrhoidal and other complaints; but as this practice should be under the entire management of a medical man, I shall not here introduce or recommend it.

I shall now proceed to instruct my readers more particularly in the application of the newly-invented lavement apparatus, giving first some general hints that will be found useful.

I have already stated, that vast accumulations of fæces will be sometimes collected in the cæcum and colon; and as they have become too hard to be affected by purgative medicines, and are too much out of our reach to use any mechanical means of removing them (as we might do if they were in the rectum instead of the colon), we have no choice left us but that which happens to be the best—namely, to throw up a sufficient quantity of warm fluid to counteract the spasm of the bowel, render the collections

soft, extend the place of their confinement, break down their structure, stimulate the inactive intestine, renew its peristaltic power, and open a free canal for their discharge—and this is to be done, not with a small quantity, like a pint or a pint and a half,—if so, the old pipe and bladder would do that; —no, it must be, in these dangerous cases, sent up in quantities amounting to from one to three quarts, which can be effected only by the new machines, remembering that it has a long way to travel, and a large space to fill, and great difficulties to overcome. I have here alluded to extreme cases. As they decrease in importance and magnitude, so will the means which should be applied decrease in like proportion; and as we shall find no difficulty in managing every-day cases by gently relaxing the bowels, so all intermediate ones will derive their benefit from the knowledge we possess with regard to the worst as well as the best cases.

It is customary in France to use a lavement after dinner; and a lady in that coun-

try would be thought as indelicate and dirty were it known that she had omitted this practice, as an English lady would be thought were she to come down to breakfast without cleaning her teeth or her nails. But as far as it relates to health, which is all that I have to do with, I recommend its application the first thing after breakfast, which is certainly the period when nature appears to require this salutary relief; which, in part, I consider to arise in consequence of the rest afforded to the stomach in the night, so that when the fresh stimulus of breakfast is applied to it, it imparts its renewed action to the smaller intestines, and they again to the larger, till the required purpose is fulfilled.

With regard to females in a pregnant state, I should generally advise that they place themselves in a recumbent position, which of course is advisable on account of the pressure of the uterus on the lower part of the descending colon or sigmoid flexure; and also to empty the bladder before they administer the lavement.

The sensations imparted in consequence, and at the time of injection, are generally the same as those we feel when first the action of purging medicine begins, and is evidence that relief will follow.

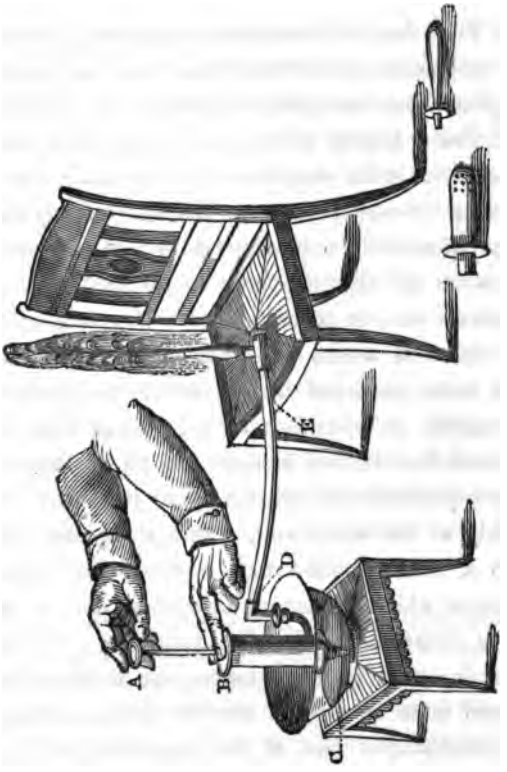
In the daily practice of using lavements, where it is merely to assist a somewhat sluggish digestion, I should recommend once or twice a week, at bed-time, to take two or three grains of blue pill; and, in order to increase the purgative action, add to it occasionally about three grains of the compound extract of colocynth; and I shall not hesitate to assure my dyspeptic readers, that in all such cases they might rely on this practice without the aid of any useless or nauseous medicines.

CHAPTER VII.

DESCRIPTION OF THE APPARATUSES FOR LAVEMENTS RECOMMENDED BY THE AUTHOR, WITH RECIPES FOR INJECTIONS, ETC.

The injecting syringes of several of the manufacturers are, in my opinion, much too small, as they only hold half an ounce, or one-third part of a common wine glass, which I have observed, in many of my patients, to tease and fire them on account of the time it takes to throw up a sufficient quantity. A better apparatus which I invented, will hold about two ounces, which is seldom found too much for each descent of the piston; and if it be, we have only to use less force, or draw the piston half way, and the same will be then effected as by the smaller-sized syringe. At the lower part of the side

of the syringe (see Plate) is attached a piece of flexible tube, about a foot in length, with an ivory pipe at the other end for the purpose of introducing into the anus, which will be easily retained there by the patient sitting down upon it on a chair; then placing a stool between the legs about four or six inches lower than the chair on which the patient sits, set in it a large wash-hand basin, which is to contain the proposed liquid for injection; insert, or put the lower open end of the syringe into this fluid to the bottom of the basin, and commence the process of pumping, and no difficulty can attend it, as the construction of the instrument is so simple, that the patient can apply it with ease, or an assistant may also employ it, without the least exposure of the patient, which, particularly with females, is a circumstance highly to recommend it.



A The Piston.
B Top of Syringe.
C Bottom of do.
D Side Opening of Syringe.
E Flexible Tube.

The other and most simple apparatus, which I recommend, and which has been improved by me from one lately introduced in practice at Paris, I have called the flexible Clysma-duct. It is the simplest and safest in its operation of any apparatus hitherto employed, and peculiarly well adapted to the administration of injections both in diseases of the bowels and in affections of the womb. It consists of a long and gently tapering funnel or hose, prepared with a water-proof composition, of from four to six feet in length, about four inches in diameter at its mouth or superior extremity, and about half an inch only at the lower end, where it is attached to a tube supplied with a cock, the other end of which is adapted for introduction, as in the instrument already described. When an injection is to be taken, the fluid to be used is to be poured into the hose, or long funnel-shaped part of the apparatus, having previously taken care that the stop-cock is turned, so as to prevent its running out at the opposite extremity. When thus filled to

nearly its top,* the funnel or hose is to be hung on a hook or nail placed in a convenient part of the dressing-room, at such a height that the lower end of the tube shall be within one inch of the floor. The tube may be now introduced, and the patient can sit, or lie down, when the stop-cock being turned, the fluid passes into the bowels by its own gravitation. By this apparatus, an injection, whether in affections of the stomach or bowels, or in diseases of the womb, may be thus employed, either in a sitting, lying, or standing posture, without the least difficulty or exposure of the person, whether it be used by the patient herself or administered by another individual.

* The filling of this apparatus more particularly applies to the administration of simple lavements; as, of course, in medicated injections, no more would be put into it than the quantity actually prescribed; but as so much is to be effected by simple injections of warm water alone, the latter practice will only be occasionally required.

A A ring to hang it by.
B Orifice of Duct.
C The Duct.
D Stop Cock.
E A Pad to prevent the return of the Fluid.
F Rectum Pipe.

I shall now proceed to give a number of recipes for medicated injections, which may be thrown up by means of either of the above apparatuses, and with the utmost benefit in a number of diseases.

A. LAXATIVE INJECTIONS.

I.

Take of Thin gruel . . . . 1 pint;
Common salt . . . 1 table-spoonful.
Mix them together.

II.

Take of Thin gruel . . . . 1 pint;
Glauber's salts . . 1 ounce;
Hogs' lard . . . . ½ an ounce.
Mix them together.

III.

Take of Epsom salts . . . 1½ ounces;
Linseed oil . . . . 2 table-spoonsful;
Warm water . . . 1 pint.
Mix them together.

IV.

Take of Manna . . . . 1 ounce;
Olive oil . . . . 2 table-spoonsful;
Barley-water . . . 1 pint.
Mix them together.

In the prescriptions containing lard or oil of any kind, I should recommend the use of the old-fashioned pipe and bladder, instead of either of the apparatuses mentioned in this book, as such greasy substances are likely to adhere about the instrument, and render it unfit for use.

These four simple injections are old family remedies, are easily prepared, gentle in their operation, and well adapted for the removal of occasional costiveness. No. III. is the most active.

V.

Take of Confection of senna . . 1 ounce;
Warm caraway water . . 1 pint.
Mix them together.

The caraway water is to be obtained by boiling 1 ounce of carraway seed in a pint and a half of water, till reduced by boiling down to 1 pint; it prevents the griping effects of the confection of senna.

VI.

Take of Castor oil . . 1½ ounce; } mix them.
Treacle . . . 2 ounces; }
Epsom salts . . 1 ounce;
Warm water . ½ of a pint.
Mix them together.

The last two, Nos. V. and VI., will be found to be rather more active than the four former, and are applicable in similar cases.

VII.

Take of Syrup of buckthorn . 2 ounces;
Glauber's salts . . 1 ounce;
Thin gruel . . . ¾ of a pint;
Antimonial wine . . ½ an ounce.
Mix them.

VIII.

Take of Senna leaves . 1 ounce;
Scraped ginger 1 drachm;
Boiling water . 1 pint; } To stand in a lightly covered vessel for one hour, then strain, and add
Soft soap . . ½ an ounce;
Epsom salts . 1 ounce;
Antimonial wine ½ an ounce.
Mix together.

In cases where milder injections are ineffectual, Nos. VII. and VIII. will be found useful agents, particularly in assisting the operation of purgative medicines; and in obstinate cases of costiveness, it will be well, on the previous night, or some few hours before their administration, to take a couple of pills, composed together of calomel two grains, cathartic extract five grains, ipecacuanha one grain.

B. PURGATIVE INJECTIONS.

IX.

Take of Spirits of turpentine . 1 ounce;
Honey . . . . . 1 ounce;
One yolk of egg . . — } mix.
add Gruel . . . . . 1 pint.
Mix together.

X.

Take of Tincture of jalap . . . 1 ounce;
Castor oil . . . . . 1 ounce;
Tartar emetic . . . . 3 grains;
Infusion of senna, prepared as before directed in No. VIII. . . . . } 1 pint.
Mix together.

XI.

Take of Extract of colocynth,
Powdered Socotrine aloes, of each 2 drachms;
Water 1 pint; simmered together over a slow fire, and constantly stirred till the ingredients are dissolved; add
Salts of tartar, a small tea-spoonful;
Tincture of jalap, ½ an ounce.
Mix together.

XII.

Take of Croton oil . . . . 6 drops;
Syrup of buckthorn . . 1 ounce;
Antimonial wine . . 2 ounces;
Epsom Salts . . . 1 ounce;
Gruel . . . . . ½ of a pint.
Mix together.

The last four of the laxative injections are adapted for diseases that resist all milder applications; but I advise patients in all cases of difficulty, and where the milder treatment is not successful, to lose no time in applying for medical relief from the hands of a skilful practitioner.

OBSERVATIONS.

Laxative and purgative medicines injected into the intestines, must remain there a sufficient time to allow their ingredients to act upon the internal surface of the canal, and to be taken up by the absorbents (alluded to in the former pages of this work), otherwise they would be merely mechanical, and

possess no advantage over water only; therefore, in many cases, where a difficulty exists as to the retention of them, it will be proper to reduce the quantity of simple fluid added to them, as water-gruel, &c., in some cases to half the quantity, or one-third, remembering that a small bulk does not stimulate the action of the bowels equally to a larger one.

C. PURGATIVES COMBINED WITH ANTI-SPASMODICS.

XIII.

Take of Glauber's salts . . . 1 ounce;
Tincture of assafœtida . 2 drachms;
Thin Gruel . . . . 1 pint.
Mix them together.

XIV.

Take of Scraped camphor . . 10 grains;
Castor oil . . . . 1 ounce;
Tincture of assafœtida 2 drachms;
Thin Gruel . . . . 1 pint.
Mix them.

XV.

Take of Tincture of castor . . 2 drachms;
Linseed oil . . . . 1 ounce;
Epsom salts . . . . 1 ounce;
Thin Gruel. . . . . 1 pint.
Mix them.

XVI.

Take of Tincture of assafœtida . . ½ an ounce;
— of Opium . . . 20 drops;
Syrup of buckthorn . . . 1 ounce;
Warm water . . . . 1 pint.
Mix them.

Patients affected with spasm will find it to their advantage to inject either of the above four prescriptions; and to females subject to hysteria they will be equally beneficial: in puerperal convulsions, No. XVI. may be well recommended.

D. ASTRINGENTS.

XVII.

Take of Tincture of kino . . ½ an ounce;
Water (cold) . . . ½ a pint.
Mix them.

XVIII.

Take of Bruised oak bark . . . 2 ounces;
Alum bruised . . . . . 2 drachms;
Water (boiling) . . . 1 pint.
Mix them, and let them stand in a covered vessel till cold, then strain.

XIX.

Take of Tincture of catechu . . ½ an ounce;
Water (cold) . . . . ½ a pint.
Mix them.

XX.

Take of Galls bruised . . . . . ½ an ounce;
Water from the blacksmith's forge . . . . . ½ of a pint.
Boil down to ½ pint. Strain.

Few cases that require the aid of astringent applications should be interfered with, unless under the direction of a medical man; but the use of astringent injections must be frequent.

E. ANTHELMINTICS.

XXI.

Take of Lime water . . . ½ a pint.

XXII.

Take of Tincture of assafœtida ½ an ounce;
Spirits of turpentine . ½ an ounce; } mix.
Yolk of one egg . . —
Add warm water . . ½ a pint.
Mix them together.

XXIII.

Take of Cape aloes, in powder . 1 drachm;
Assafœtida, bruised . . 1 scruple;
Thin Gruel (warm) . . ½ a pint.
Stir them till the ingredients are dissolved.

XXIV.

Take of Tobacco . . . . 6 grains;
Boiling water . . ½ of a pint.
Let it stand in a covered vessel one hour, then strain.

XXV.

Take of Cowhage, scraped from the shell 1 scruple;
Honey . . . . . 1 ounce;
Gruel . . . . . 3 ounces.
Mix them together.

These injections may be used with advantage in cases of tape-worm, or the tormenting little ascarides; and any of the above may be

safely administered to children of the most tender age, only regulating the quantity accordingly, and daily repeating it; but in cases of those worms which inhabit the stomach or small intestines, this practice will avail but little, and I must then recommend purges of the drastic kind, or, probably, some of the preparations of mercury, during two or three successive days, and afterwards the use of any of the above injections. By these means the worms will be expelled from the upper parts of the digestive canal, and driven into the large bowels, where the injections will reach them.

F. ANODYNES.

XXVI.

Take of Tincture of opium . . . . 1 drachm;
Warm milk . . . . . ½ a pint.

XXVII.

Take of Oil of linseed . . . . . 6 drops;
Laudanum . . . . . 12 drops;
Prepared chalk . . . . 1 drachm;
Thin Gruel (warm) . . . 4 ounces.

XXVIII.

Take of Epsom salts . . . . . 1 ounce;
Tincture of opium . . . . . ½ a drachm;
Oil of olives . . . . . 2 ounces;
Mucilage of gum arabic . . . 1 table-spoonful;
Thin Gruel . . . . . ½ a pint.

XXIX.

Take of Extract of opium . . . . . 5 grains;
Extract of hyoscyamus . . . ½ a drachm;
Camphor . . . . . 1 scruple;
Gum acacia powder . . . . 2 drachms;
Add Spirits of wine . . . . . 20 drops;
Warm linseed tea . . . . . 8 ounces.
Rub the camphor with the spirits of wine.
Mix them together.

XXX.

Take of Tincture of opium . . . 1½ drachms;
Mucilage of gum arabic . . 3 table-spoonfuls;
Camphor . . . . . 2 scruples, rubbed up with a few drops of spirits of wine, and then with the mucilage.
Warm water . . . . . ½ a pint.
Mix them together.

XXXI.

Take of Tobacco, from . . . . 20 to 30 grains;
Boiling water . . . . . ½ of a pint.
To stand in a covered vessel for a quarter of an hour, and then be strained.

Very numerous, indeed, are the cases wherein benefit may be effected by the use of anodynes, particularly when administered *per anum;* some of the principal of which will be found in the list of diseases in the index. The class of anodyne injections, combined with tobacco, can only be applicable in cases coming immediately under the management of a talented practitioner, as, for instance, *strangulated hernia,* as considerable danger attends the administration of this herb. In flatulent and colicky pains of the bowels, in the absence of actual inflammation, it is sometimes found to be a good practice to combine anodyne with purgative remedies, and this course has received the sanction of many eminent physicians.

G. TONICS.

XXXII.

Take of Peruvian bark powder . . . 1 ounce;
Tinct. of opium (called laudanum) ½ a drachm;
Thin Tepid gruel . . . . ½ a pint.
Mix together.

XXXIII.

Take of Extract of bark . . . . . 2 drachms;
Confection of opium . . . . . 2 grains;
Tepid water . . . . . 6 ounces.
Mix them.

XXXIV.

Take of Sulphate of quinine . . . . 1 scruple;
Laudanum . . . . . ½ a drachm;
Tepid distilled water . . . . ½ of a pint.
Mix them.

Persons whose stomachs are weak, and unable to retain tonic medicines, will find the advantage of employing injections like these; and in the case of infants and children, with whom much difficulty at all times exists in administering tonics by the mouth, these will be advisable, regulating the quan-

tity and strength according to the age of the child, and omitting the laudanum in cases of young children.

H. STIMULANTS.

XXXV.

Take of warm brandy and water, a quantity equal to two glasses, as usually made to drink.

XXXVI.

Take of Grains of paradise . 1 drachm;
Cubebs . . . . . ½ an ounce;
Mustard seeds . . . ½ an ounce;
} bruised.
Boiling water . . . ½ of a pint.
Let it stand till nearly cold, then strain.

In some cases of suspended animation, as from drowning, cold, &c., XXXV. will be found useful, and XXXVI. in suppression of the menses.

I. DEMULCENTS.

XXXVII.

Take of Fat mutton broth . . 1 to 2 pints.

XXXVIII.

Take of Mutton suet . . . . 2 ounces;
Milk . . . . . 1 pint.
Boil together till the suet is dissolved, then strain.

XXXIX.

Take of Pearl barley . . . . 1½ ounces;
Water . . . . . 2 quarts.
Boil it away to one-third the quantity, then strain.

XL.

Take of Linseed . . . . . ½ an ounce;
Water . . . . . 1 pint.
Boil for a quarter of an hour, then strain.

XLI.

Take of Starch . . . . . ½ an ounce;
Water . . . . . 1 pint.
Mix it the same as for laundry purposes.

These formulæ are recommended in dysentery, and I believe deservedly so; but their benefit will be augmented by the frequency of their use.

K. NUTRIENTS.

XLII.

Take good beef tea, or veal broth, or calf's feet jelly, or thick milk, or isinglass jelly, or prepared sago, or arrow-root, from half a pint to two quarts; and use by injection as occasion may require.

In stricture of the œsophagus, weak stomach, ulcerated throat, malignant sore throat, fever, &c., the strength of the patient will be very materially supported by frequently throwing up small quantities of either of these; but much has already been said on this subject in the earlier pages of this work.

CHAPTER VIII.

OF MEDICATED INJECTIONS IN SOME DISEASES OF THE FEMALE ORGANS, WITH RECIPES FOR VARIOUS KINDS OF INJECTIONS WHICH MAY BE USED IN THESE DISEASES.

THERE are a number of diseases to which females are liable, which may be either much benefited by injections, or entirely removed by them. Amongst these I may enumerate retention or suppression of the monthly indisposition; painful indisposition; hæmorrhage from the womb; relaxation or a disposition to falling down of this organ; and several forms of whites, or uterine discharges. On each of these I shall offer a very few remarks only, as these complaints should not be confided to domestic management without

the occasional advice of a scientific practitioner.

In *retention* or *suppression* of the monthly *indisposition*, unconnected with the pregnant state, the judicious employment of lavements will often be of the utmost advantage, not only as tending to prevent the costive state of the bowels, in which these ailments frequently originate, but also as essentially promoting this function, by removing spasm and obstruction, and soliciting an increased afflux of the circulating fluids to the obstructed organs. With this view, the patient should take two of the following pills at bed-time, every night for a week previous to the expected period, and continue the same dose on the alternate, or every third night, after the period has passed by.

XLIII.

Take of Aloes and myrrh pill . . . 1 drachm;
Compound extract of colocynth 1 scruple;
Extract of gentian . . . ½ a drachm.
Mix them intimately, and form the mass into 30 pills.

A lavement should be employed the following morning, of simple water only, or of thin water gruel, to which a large tea-spoonful of salt may be added; and its temperature should not be lower than 100, or upwards of 112 degrees of Fahrenheit's thermometer.

When retention of the indisposition is owing to debility of constitution, tonic remedies, as the preparations of bark, or of gentian, or of steel, ought to be given daily, about an hour or two before dinner; and the following pills taken at bed-time; and similar lavements to those just now recommended used the following morning.

XLIV.

Take of Compound steel pill . . . . 1 drachm;
Aloes and myrrh pill . . 1 scruple;
Compound galbanum pill . ½ a drachm.
Mix them, and divide the mass into 30 pills. Take two of them every night, or each alternate night.

A similar treatment to the above will be employed with benefit, in cases of *difficult or painful indisposition*. When the colicky

pains, which often usher in this function, are urgent, lavements, such as I have recommended, and at the same temperature, will be extremely serviceable; or the following:

XLV.

Take of Water gruel . . . . . 1 quart;
Camphor, finely scraped . . 15 grains;
Spirits, sufficient to dissolve the camphor;
Assafœtida, in powder . . . 1 scruple.
Mix, and use as a lavement, at the temperature of about 110 deg.

Or the following:

XLVI.

Take of Warm water, or water gruel, 1 to 4 pints;
Camphor . . . . . 10 grains;
Common Gin . . . . . 1 to 1½ ounces.
Dissolve the camphor in the spirits, and add the water, or gruel.

In cases of *difficult* or *painful indisposition*, or in suppression of this function, occurring in married females, &c., an *uterine* lavement will often prove beneficial. Even

warm water at a temperature of from 104 to 110 degrees, will be found of use, injected towards the *uterus;* but medicated injections for these purposes are preferable, and I would recommend the following:

XLVII.

Take of Warm milk . . . .
Warm water, 1 to 3 ounces, each;
Spirits of sal volatile, 20 drops to ½ a drachm.
Mix for an injection.

Or the following:

XLVIII.

Take of Warm water . . . . . 2 to 6 ounces.
Sub-carbonate of Ammonia . . 5 to 15 grs.
Mix for an injection.

In cases of *hæmorrhage* from the womb proceeding to a hurtful length, medicated injections will often be of service. Lavements of a cooling nature may be previously employed, under the direction of an experienced medical attendant; and if these fail, I would recommend the following injections

LIV.

Take of the above Decoction of oak bark (No. 52.)
from 2 to 6 ounces;
Tincture of gall-nuts, from 1 to 2 drachms.
Mix.

The *whites*, or fluor albus, arises from various causes; but in every case attention to the state of the stomach and bowels is necessary, and the use of lavements required. When this disease proceeds from debility, constitutional or local, the above medicated injections (Nos. 52, 53, 54) will generally remove it. But in more obstinate cases the following may be employed:—

LV.

Take of the Decoction of oak bark, as above prepared,
about . . 4 ounces;
Common alum, from ½ a drachm to 1 drachm.

LVI.

Take of Rose water . . . . . 4 ounces;
White Vitriol . . . 6 to 12 grains.
Dissolve.

When the discharge appears to proceed from some organic change about the neck of the womb, and takes place at the change of life, the most scientific and experienced medical aid should be obtained. The above medicated injections afford only temporary relief; but the following may be employed with better hopes of success:

LVII.

Take of Warm water, about . . . 4 ounces;
Labarraque's disinfecting fluid 2 to 4 drachms;
Extract of hemlock . . . . 5 to 10 grains.
Mix.

Or the following:

LVIII.

Take of Warm water, about . . . 4 ounces;
Labarraque's disinfecting fluid 2 drachms;
Camphorated tincture of opium 1 drachm;
Extract of opium . . . 4 grains.

Either of these two injections may be used once or twice a-day. The smaller quantity of the ingredients, named in these and in the

other medicated injections, may be first used, and the quantity increased to the larger named, or even to a still stronger dose, according to the effect produced, and the sensations of the patient. The use of these ought to be preceded by the employment of lavements, in the manner I have endeavoured to inculcate; for all the diseases of females are most successfully prevented, and cured or alleviated, by attention to the state of the stomach and bowels, and to diet and regimen. I can state this with the utmost confidence, derived from a long and extensive experience in this class of diseases, and from the very great success with which the practice here advocated has been uniformly attended.

CHAPTER IX.

ON THE REGIMEN OF PERSONS SUBJECT TO INDIGESTION, COSTIVENESS, AND OTHER AFFECTIONS OF THE DIGESTIVE ORGANS.

Having said thus much on the benefit to be derived by the use of simple warm water lavements for the prevention of some diseases, and the cure of others, and given some directions for the management of diseases of a more complicated nature, by the injection of medicated fluids, I must now remind my readers, that health cannot depend alone on the employment of these means, any more than by the more usual practice of physic, even under the advice of the most eminent physicians. Remember that there are other agents to be called in

aid, and these I believe to be of vital importance: I allude to air, exercise, sleep, clothing, regular quantity of food and drink, as well as attention to quality, medical assistance and advice, &c. &c. And first, on

AIR.

To prove the importance of this fluid, both as far as regards life and health, we need only ask ourselves, how long could we live without it? For a few days we may exist without food, or for a few weeks with but a very little; but a few moments only could life be sustained without the beneficial influence of the atmospheric air. Life, then, is sustained by it. The blood that circulates throughout the body is indebted for its oxygenous state, or florid colour, to its contact with it, when drawn in by the lungs in the act of breathing. The heat of the body is regulated by it. Putrescent matter is ejected from the blood, by means of the lungs, in exchange for pure invigorating particles: thus, fresh air is found necessary to our

existence. It is, therefore, of importance that our houses in every room should be well ventilated, and particularly as applies to the sleeping rooms, the doors and windows of which are usually shut up the whole of the night.

The climate in which we live is variable, and it is required that our constitutions should be accustomed to the changes, otherwise it would be impossible to go out of our houses without the risk of taking cold; and in order to be hardened to these changes, I think a daily exposure, in dry weather, to the external air is absolutely required. If it be asked, why are the people of this country so susceptible of cold, and so subject to consumption? I would answer, in consequence of the sudden changes in the air, and of the constitution not being properly trained to meet them. What is to be done? Why, spend one-fourth of our daily time in the open air, and be prepared for the attack of the adversary. Those who are delicate or sickly, must avoid the morning and evening

air, and confine their walks to the middle of the day.

Medical men, in hospital practice in London, are well acquainted with the fact, that patients with fevers, accidents, and wounds, remain confined a much longer time than those with the same maladies that are treated in the country; and that the deaths are in much larger proportion. Of the whole population of London, it is a sad truth that one in every forty dies annually, whilst in the country there is not more than one in fifty or fifty-five. Now, where can a better evidence be adduced of the superiority of a country life? Nor, I think, can a better evidence be produced not only of the necessity of air, but also of air of the purest quality.

EXERCISE.

Examples are constantly before us of the beneficial influence of daily activity: even if we were to go no farther than a comparison of the appearance of the countenances of persons of sedentary habits, and of those

who take sufficient exercise, we should be at once satisfied of the great advantages resulting from exercise. It assists digestion; and to the want of exercise, more frequently than to any other cause, the sluggishness of the organs engaged in the performance of this function is to be imputed. The health of the body, as well as the energy of the mind, depend on exercise; for whilst it increases the circulation of the blood, it strengthens the tone of the nerves, calls the muscles into action, assists the peristaltic motion of the intestines, urges their contents downwards, prevents unnatural accumulations, and affords us the best means of enjoying fresh air. Another proof may be derived from the effects of exercise on the parts chiefly engaged in it: the hands of a sailor, the arms of a waterman, the back of a porter, and the legs of a ploughman, are always stronger than those of others not engaged in like occupations. The activity of the intellectual powers keep pace also with the rapidity of digestion; for who does not know

that a full and weak stomach makes us sluggish, inactive, sleepy, and sometimes stupid?

Again: the want of exercise causes all those affections which deform and enervate the system in early life, and entail disease on the offspring; as curved spine, growing out at the hips or shoulders, scrofula, bilious disorders, nervous irritability, &c. &c. Recollect, that as digestion is promoted by exercise, so is the stomach emptied, and fresh supplies of nourishment required; so that the appetite also is improved. Once more: it promotes all the secretions, increases the usual discharges, urges the action of the large intestines, encourages perspiration, and prevents the obstruction of the menses.

Persons who are too weak to walk, which is, perhaps, the best of all kinds of exercise, should ride on horseback, or take any other within their power that is best calculated to preserve a due equilibrium of the functions of circulation, secretion, and animal heat. When patients are unable, from debility, to indulge in air and exercise, the best sub-

stitute perhaps that can be offered is, the plentiful application of friction by means of the flesh-brush.

SLEEP,

'Nature's soft nurse.'

Both mind and body are indebted to the restorative influence of sleep; and so valuable is it to health, that a substitute cannot be found for it. Those who are deprived of it, soon discover their entire system to be deranged; their limbs become weary, their eyes dim and heavy, their appetite lost, and their spirits flown; and unless they can again soon resume their wonted rest, they feel most wretched.

During the fatigues of the day, there is a constant call made on the nervous influence, and the whole of the frame becomes exhausted of its vital energy. The very light that surrounds us becomes irksome as night advances: thus, the benefit that we derive from sleep is, a restoration of the tone of the nerves, and hence the exhausted constitution

is renovated. In disease, we consider sleep as one of the most certain indications of recovery; and to obtain it is a leading object with medical men.

As exercise and air promote digestion through the day, so through the night are the same purposes effected by means of rest and sleep; and many experiments have gone to prove, that digestion is even more rapid during our sleeping, than our waking hours. One of which I give as follows:—

"A gentleman, in the country, who kept dogs, was desirous of ascertaining the different processes of digestion under the varied circumstances of rest and fatigue. He accordingly selected two healthy pointers, of the same age, strength, and size, both of which he caused to be fed with a hearty breakfast of beef: the one he took out with him afterwards, and gave him a long and hard day's run over a heavy country; the other he locked up in his kennel till his return in the evening; he ordered both to be killed, and on examination of their stomachs, it was

found that the dog that had been at rest, and probably asleep the greater part of the day, had completely digested every particle of his food, and that both his stomach and bowels were quite emptied; whilst in the other, that had been running the whole of the day, the beef was found nearly in the same state as when it was bolted down in the morning—so much for over violent or extreme degree of exercise, and so much for the advantages of sleep."

Persons who have attained to a great age, have generally been found to be sound, although not long sleepers. This is good proof that the animal fluid which has been expended during the day, is restored again during the night. At the same time, we ought to guard against indulging too much on the downy pillow of rest; as air, light, energy of mind, and activity of body, are conducive to health in the same proportion by day, as sleep is by night. The division of time that generally appears, in all respects, best suited to a healthy state, at all

ages and in all constitutions, is eight hours in bed, and sixteen hours of mental or bodily activity. By devoting this proportion of time to rest, the equilibrium of health will generally be best supported. Some of the most judicious rules for promoting sleep are—to go to bed fatigued to take care that the feet are warm, the head high, the stomach light, the room ventilated, the coverings tolerably warm, and the mind contented.

CLOTHING.

It is essential to health, to take care that our bodies are protected by means of proper clothing, suitable to the changes of our climate, our age, sex, habits, and constitution. The principal varieties in our clothing are constituted of linen, woollen, cotton, silk, fur, and leather; and of all these, perhaps, for the preservation of human health, we are most indebted to wool; and its beneficial influence appears to depend, partly on its property of slowly and imperfectly conducting heat, and on its mechanical action upon

the skin, promoting and encouraging perspiration, which it readily absorbs, soon discharges by evaporation, and is again, by the heat of the body, dried and ready for reaction.

To the debilitated, the infant, and the aged; to those affected with colds and consumption, or afflicted with chronic rheumatism, gout, or other tedious and obstinate diseases, it is particularly serviceable, and cannot be too highly valued. Flannel should not be worn too long, as its pores become obstructed by the thicker parts of perspirable matter, and then it induces effects as injurious as those produced by a damp linen shirt. I recommend that a flannel shirt, which of course should be next the skin, should never be worn beyond four days in summer, and eight in winter, especially by those who perspire much: on the score of cleanliness, it ought not to be worn for a longer time. The shirts, drawers, and stockings of invalids, particularly those labouring under internal disease, should be composed of

woollen. Great care then should be taken by feeders of cattle to select the best breed of sheep, both on account of the meat (which is, when good, the best of animal food), and also for the superiority of their wool. Dibdin has dwelt upon these points in the following admirable Song.

I.

Our sheep-shearing over, surround the gay board,
With hearts full of pleasure and glee!
And while we partake of the plentiful hoard,
Who so blithe and so happy as we?
From that staple, the wool, all our consequence springs,
The woolsack is next to the throne;
It a freedom secures, both to peasants and kings,
Which in no other country is known.
It guards us awake, and preserves us asleep,
Night and day, then, thank heaven, that gave us the sheep.

II.

When bleak piercing winter comes on with a frown,
Frost and snow clogging hedge, ditch, and style,
Annoying alike both the squire and the clown,
Wrapt in wool, we look round us and smile.
Did we sing in its praises from evening to morn,
'T would our gratitude only increase;
The dying old man, and the infant new born,
Are both kept alive by the fleece.

Then how with the truth a fair pace can we keep,
When in warmest expressions we speak of the sheep?

III.

No words are sufficient, whate'er can be said,
To speak out its praises aloud;
For it never forsakes us,—nay, after we're dead,
It furnishes even our shroud.
Nay more, if the sheep, while it ranges our fields,
For our wants all those comforts supplies,
Faithful still to the last, to the butcher it yields,
And for our daily nourishment dies.
Thus, living or dead, we its benefits reap—
Then, ye sheep-shearers, sing your true friend—the poor sheep.

Linen is also a useful article of clothing, and in the summer season promotes cleanliness and health, if frequently changed: if not, it becomes dangerous to the wearer, as it retains for a long time the perspiration, becomes cold, and is likely to induce cold and fever;—therefore, those who perspire in large quantity should avoid it as an under garment.

Cotton may be regarded as an intermediate kind of clothing; and those who object

to the bulk, warmth, or irritating qualities of the wool, or the cold, damp nature of linen, may find in this article of dress a good substitute; and there is at any rate one great advantage to the purchaser, which is, that it is the cheapest of all kinds of dress.

Silk clothing ought rather to be regarded as an article of luxury and show, than of service: for the benefit of trade, therefore, let those wear it who can afford it.

Furs are not articles of dress suited to the health of persons in this climate, and should be only worn as exterior dress for the purpose of ornament. The objection to them is their stimulating qualities, by which too much perspiration is encouraged, which is weakening to the patients. They do well in the colder northern regions, and are to those people a source of great comfort.

Leather has of late become an article of under dress; how long it will continue so, I know not, but must say, it does not appear to me to deserve the encomiums that some bestow on it. I should think it of too close,

compact, cold a nature, to be compatible with health, inasmuch as the perspirable matter of the body does not evaporate through it, as is the case with manufactured clothes, which are generally of a porous texture. It has, however, its advocates.

ON THE PERIODS FOR EATING AND DRINKING.

Regularity should constitute our habits for these engagements, perhaps more than any other; for in proportion as this is conducted, so will be, in a great degree, the habits of our digestive organs. If we only consider how much of our health depends on digestion, we shall not, I am sure, neglect any means by which it is to be improved or supported.

We are all acquainted with the effect of habit on many of the leading features of our life. A person accustomed to rise at five o'clock in the morning, cannot sleep after that time; persons who indulge in sedentary life, feel no disposition for air and exercise; those who dine at twelve or one

o'clock, cannot, without much inconvenience, wait till four or five; those who take a dram in the morning, or a pipe in the evening, seem not at first to do well without them.

As it is necessary, then, on account of the rapidity of the action of the juices of the stomach on the food, that it should receive a fresh supply about every four hours, certainly it must be clear that the whole of these meals should not be crowded into one; and equally obvious, that as regular a division of the periods between should be arranged, that the stomach may be relieved of one load before another is imposed on it, and then the *effect of habit* will be shown here also, as hunger will announce its readiness for a fresh supply at the appointed hour.

The principal points I wish to urge in respect to this subject is, that the meals should not only be divided as to time, but also as to their weight and nutritious character. I would recommend the quantity of each to be moderate, particularly each alternate meal, as best adapted to persons in health; and I

should say, make a good, nutritious breakfast at eight o'clock, having been dressed for at least an hour previously. At twelve o'clock, I advise what is termed a 'lunch,' which should consist merely of a biscuit, with a small piece of old digestible cheese, or butter, and a glass of sherry. At four o'clock, a moderate dinner of animal food, with a sufficient quantity of seasonable vegetables, the whole diluted with good home-brewed table-beer, or water, and followed by not more than three glasses of foreign wines. At eight o'clock, coffee or tea, and biscuits or stale bread and butter, which should be the last full meal: and, as ten or eleven o'clock is a proper time for retiring to rest, if it have been sanctioned by custom, it is found not unwholesome to take one *very small* glassful of warm spirits and water, of moderate strength,* and a plain biscuit, or part of one, with it. This will excite the action of the stomach, assist digestion, and promote secretion. To those in inferior stations in life, whose avocations

* Hollands or good Gin is the best.

require very early rising, or whose employments urge the action of the digestive organs in a greater degree, a system of dietetics is also essentially requisite, and should be suited in like manner to the state of the stomach; of course, commencing with the first meal earlier, and regulating the calls of hunger by observing similar rules suitable to their station.

The last subject to which I intend to refer is, to remind my readers, that, although the leading object of this work is avowedly to recommend the use of lavements of warm water for the prevention of simple, and frequently for the cure of more obstinate diseases, also occasionally some medicated injections, yet when disease assumes a violent character, your own or domestic judgment ought never to be relied on; and, in a country where every opportunity is afforded for the promotion of medical science, no difficulty can ever prevent from calling to your aid the judgment of men who are the ornaments of their profession and of society;

and to them only can you look with confidence in cases of difficulty and danger. I trust that the rules here laid down, with the hints that accompany them, will, in some measure, assist in deterring the public from the dangerous practice of trusting to empirics,—of spending their property and risking their lives, by flying for relief to the advertised nostrums of the day.

OBSERVATIONS.

Let it be remembered that a proper attention to the condition of the *digestive organs* is of primary consequence in every stage of life. Not only will disease be prevented by it, but in almost every malady to which we are liable, even of the mildest and most simple nature, the cure must depend more on this than on any other measure.

Observe, also, that the most trifling deviation from *health* is *disease*; even a scratch on the flesh, a corn on the foot, a cold in the head, might and have produced fatal termination; and even should they pass off without

apparent mischief, still every ache and every pain must be subtracting from our natural period of existence, and will (like the dropping of water, which, by its constant repetition, wears through a rock) abridge our strength, and if not so rapidly, yet as certainly as the ravages of disease of a more palpable description.

Further, it must be obvious to every reflecting mind that the liability to danger in consequence of accidents is greater or less in proportion to the previous sound or unhealthy state of the constitution.

If the operative functions of the bowels be properly attended to, so as to keep them regularly cleansed at least once in every twenty-four hours, I assert, that with very few exceptions, exclusive of those from accidents, perfect health may be depended upon. And here allow me to add, that regularity with regard to the hour in which nature should be relieved, is of more consequence than is generally supposed. Let the individual fix on a stated time (I have before said that imme-

diately after breakfast is the period most convenient, as well as the best, in all respects); and whether he have an inclination or not, let him urge and encourage an action of the bowels, by which attempts, in a short time (such is the effect of habit on the system) relief will always be the result.

In order that the digestive machinery should perform its offices with most advantage, it is necessary to observe, that it should not have too much to do at once, remembering, that a little well done is better than a great deal badly done; in short, never overload the stomach, but rather leave the table with some degree of appetite: this, by custom, will be found infinitely more agreeable than the disgusting habit of gorging till ready to burst. For whatever is taken into the stomach beyond what is convenient, is *hurtful*, inasmuch as there is only a sufficient quantity of the dissolving fluid, called gastric juice, for the natural and proper digestion of just as much nutriment (and no more) as is required for supporting our existence: all beyond this be-

comes, in consequence of the heat and moisture of the stomach, soon decomposed and putrid; in which state it is taken up into the system, and lays the foundation of innumerable diseases, apoplexy and gout, to wit: these, to medical men, are evidently produced by the causes I have stated, and they have no doubt, that a vast number more persons die from excess in eating than are annually killed by the sad vice of intoxication.

Next in importance to quantity is the quality of nutriment, as the experience of ages fully proves; but should additional evidence be necessary to maintain this fact, we have only to notice the squalid, emaciated, or else bloated, countenances of the rich, who indulge in luxuries, and compare them with those persons whose walk in life is a little below mediocrity. If the stomach were made even of tin, iron, brass, copper, silver, gold, or any other hard substance, instead of the durable substance of which the all-wise CREATOR has constructed it, such materials would not last as many days as it now does years of our

natural life. I say it would be impossible for these substances to be preserved under the application of such chemical decompositions as those with which our stomachs are generally supplied,—as boiling-hot tea, and this followed by ice; first an acid, then an alkali; then a basin of hot soup, followed by a draught of cold beer,—with every thing the ingenuity of a foreign cook can invent to fill the stomach with the most heterogeneous masses of all that is unwholesome and opposed to common sense—these are causes sufficient, without seeking for more, to account for the bulk of those infirmities to which we are subject.

Having alluded to the ill consequences of an overloaded stomach, as well as to the injury it is likely to sustain from food of an irritating and pernicious quality, I yet do not wish to be understood to recommend that at every meal we should be provided with scales and weights for ascertaining the exact numbers of ounces to be swallowed, nor a graduated measure for dividing our beverage

into potions; this would be inconsistent, as every one knows that the cravings of the stomach are continually varying in proportion to the bodily or mental exercise, sleep, changes of air or wind, perspiration, occupations, or state of digestion, to which we are subjected, and that necessarily nature must require more support at one time than another. Neither do I urge that every meal should be so simplified as to consist of a repetition from day to day of one particular kind of food—mutton! mutton!—always; on the contrary, a well-selected variety of mild, nutritious, digestible food, both of the animal and vegetable kind, will enable us to effect that change which is both pleasant to the palate and essential for the preservation of health and prolongation of life.

Of general diet in indigestion and costiveness, I have treated in the fifth Chapter of this little work; I shall, therefore, in these observations, only add that I am no advocate for that precision which marks the character of some of the Doctors of the old school,

but I would rather imitate those men whose understandings have arrived at maturity, and are, or ought to be, the best judges of the quantity of food the stomach will receive and digest with convenience, as well as the kind of food that affords most nourishment to the system, with the least possible distress to the digestive organs. At the same time I feel myself here bound to acknowledge that I have been gradually drawn from conviction to adopt, for the preservation of *my own health*, a system approaching as near as possible to the precepts of Moses, as laid down for our guidance in the Holy Writings; and I shall avail myself of this opportunity of recommending to those of my readers who are sincerely in *pursuit of health*, the perusal of a learned and excellent little volume from the pen of that talented Surgeon, Mr. Warren, of Manchester Street, Manchester Square, entitled 'A Discourse upon National Dietetics, &c.,' published by Longman and Co., Paternoster Row, wherein he has plainly shown the importance of *scriptural* diet, and the complicated evils of its neglect. He ob-

serves that 'Moses in Deut., chap. xiv., lays down his code or precepts for eating, and enumerates those kinds of meats which are clean or wholesome, and at the same time warns from all those which are unclean, unwholesome, abominable, or polluting.' As I have referred my readers to this intelligent work itself, I must leave it to their own inclinations to search the Sacred Writings in confirmation: I shall only add as a general remark, that the Bible being true, I conceive we are as much bound to adopt these precepts as the other commandments of Scripture which have been written for our guidance. In conclusion, it would be injustice to Mr. Warren, and the system he advocates, were I not to declare that, since I have adopted the system of diet indicated in his work*, my own health has greatly improved; and the attacks of gout, to which I have for years been a martyr, have been less severe and much less frequent; and I have had much pleasure in hearing of several cases of scrofula and

* Moses forbids the eating of swine's-flesh, fish without scales, animals that are not slaughtered by bleeding, &c.

consumption, that have been entirely cured under his system of treatment.

In a clever little book, entitled 'Simplicity of Health exemplified, by Hortator,' page 138, sect. 202 and 203, we read as follows:—

'It is not a little amusing to observe the anxiety that people evince to know what is said by medical writers to be wholesome and unwholesome. When they take up a work of advice in diseases, or on the preservation of health, after looking at the book that treats upon the complaint that affects themselves, they hurry through to see the author's approval or condemnation of the different kinds of food and drink in general use. They then say, "I find that I must take more of this, I must leave off that entirely;—this sort of anxiety is nothing less than ridiculous: it never furnished an instance of longevity."

'On examining the domestic history of those who attained to extreme old age, we find that they gave themselves little trouble about such matters. They mostly ate and drank indiscriminately of what they knew was

not decidedly unwholesome, and which did not particularly disagree with their constitution (a knowledge that requires neither learning nor science), rose early, were of active and exercising habits, temperate and sober from choice, and were not afraid to be overtaken by a shower when unprovided with a great coat or umbrella.'

Although so much nicety is not absolutely necessary in the manner of supplying the *stomach* as is recommended by some, and practised by others, there are yet times when this organ does require more than usual humouring, on account of the derangement to which it is liable in consequence of its amazing disposition to sympathise with every other part; and even allowing, as I do, that food of a compact and solid nature is generally best suited to its functions (see account of the Penitentiary dieting, page 73 of this work), yet there are times, when, from an exhaustion of the energies, or from deficiency of its secretions, it will digest with greater ease a basin of arrow root, chicken broth, or

boiled custard, than it could a solid meal of meat. Therefore I would lay it down as a maxim, that the food should be adapted in quantity and quality to the powers of the stomach at the time of eating. Should I be asked why solid food is best adapted to the functions of the human stomach, I reply, that experience has proved, by analogy, that animals of the inferior kind thrive better on dry hard substances than they do on larger quantities of moist or soft food; for instance, the horse, when fed on oats and hay, is capable of performing ten times more labour on this kind of fodder than when fed on grass or clover; for it appears that the stomach is an organ requiring a quantity of unassimilating matter to extend its bulk so as to call its more energetic principles into action. This would not be accomplished by an adherence to a simple fluid-like kind of gelatinous nutriment.

Let it not be imagined that, by showing the importance of *solid* food, I mean that *animal* matter should form the larger portion of our aliment; on the contrary, I am of

opinion that we all indulge too much in this sort of feeding, and that it would be better for us individually, and far better for society in general, were we to substitute more vegetable in our diet. Meat is highly stimulating, and never fails to produce a temporary fever, an indication of which every person is acquainted with, who observes the sparkling eye and flushed cheek produced after flesh meals. Whereby, as is the case in all inflammatory fevers, the energy of the system must be destroyed by a continued and excessive demand on its vital fluids. Again, it would appear by analogy, that animal food in too great proportions, by its excessive stimulating qualities, has also a tendency to brutalize our dispositions and habits, by producing the most injurious effects on the mind, whereby we are less mild, gentle, and affectionate one to the other. The Tartars live chiefly on meat, and are described as a most brutal, savage, cruel, and vicious set of brigands. On the contrary, the Hindoos live solely on vegetables, and are characterized as

a harmless, meek, and amiable people. I might also adduce that all *ferocious* beasts and birds are carnivorous; for instance, the lion, tiger, wolf, fox, eagle, hawk, &c., while the *tamer* kind, such as the cow, sheep, hare, rabbit, pheasant, dove, &c., are *graminivorous*. A story is told of a person that trained up a tiger to follow him about like a dog, and that he was in all respects as familiar and domesticated, which he had been able to effect by entirely feeding him on vegetable food; that one day he was taking his accustomed walks in the fields, when, happening to scratch his finger with a thorn, and allowing the animal to lick the blood, he immediately sprang on him and tore him to pieces.

We have also an opportunity of observing in an exhibition of the present day, at Drury-lane Theatre, that Monsieur Martin, by feeding Lions entirely on vegetables, is as familiar with them as we are with a domestic cat.

Further proof that the aliment contained in vegetable matter is suitable food for carni-

vorous animals, is given in a splendid work lately published, entitled 'The Gardens and Menagerie of the Zoological Society Delineated.'

Speaking of bears that had been confined in the pits of Berne, and others in the Menagerie of the Jardin des Plantes at Paris, the former for thirty-one years, the latter for forty-seven, in both of which establishments their only food consisted of bread, occasionally varied by the introduction of fruits and vegetables—'At Berne, in particular, by a regulation of the police, all the unripe fruit that was brought to market was ordered to be given to the bears. *They were never allowed to taste of flesh;* and their thriving condition proved that such an addition to their usual diet was perfectly unnecessary to the maintenance of their *health*.'

But as Europeans are accustomed to animal food, and, as an industrious labouring people, they require it, I shall therefore merely recommend on this subject that vegetables compose a larger share of diet than custom and

habit generally sanction. And, as it appears too by the formation of our *teeth*, it was intended that both kinds of food should comprise our sustenance, the human teeth being peculiarly constructed for tearing and grinding, they are both naturally indicated. Then as regards the necessity of a proportion of unassimilating matter, this can be obtained as well from the vegetable as the animal creation, or *vice versâ*.

Another subject for our consideration is, to regulate our system of diet in conformity to our age, habits, infirmities, and avocations. It would be madness indeed to suppose that the infant rising into life, or the decrepit, infirm old man, tottering on the brink of his grave from declining strength and worn out muscles, should require, or even be able to bear, the stimuli of invigorating wines, high-flavoured condiments, or generous dieting, equally with those who, full of blood and activity, do, by exercise in the open air, arouse every feeling both of a bodily and mental nature. To support, then, an equili-

brium in the system, is the grand art of preserving health, that the waste and the supply may be brought to a tolerably correct balance; in fine, to take care that what is discharged from the body from its various outlets should keep pace with what it receives; without this regulation, it must be oppressed with its supplies, or exhausted by evacuations.

Regularity in our pursuits is not only commendable and will insure a fortune, but is particularly advantageous to health. Rise early, go to bed early, divide and fix the period for meals; with regard to dress, make no sudden changes, nor allow the allurements of fashion to decoy to indelicate or dangerous practices, among which I refer to the fatal habit of the many females in this country who are sacrificed to tight lacings, of which cases the author has had frequent opportunities of making *post mortem* examinations, and these examinations have proved his previous opinion and conviction of their cases, which, by a display of morbid appearances too shocking to relate, have demonstrated the

impossibility of health with unnatural binding for a foolish display of figure. I also warn from sitting in draughts, from all sudden or immoderate changes of heat or cold, and at the same time recommend that the feet *be always* kept warm and dry.

Cleanliness, which is said to be next to godliness, is certainly not only a luxury but a virtue, and is indispensably necessary to the preservation of health; and it is a happiness to live in a country where its advantages are so highly valued. I therefore advise a regular period for daily external ablution; the best time is immediately on leaving bed in the morning, which, taking care to well rub the body dry with a coarse rough towel, tends to open the pores of the skin, whereby nature is enabled to discharge any redundancy of acrid and hurtful juices.

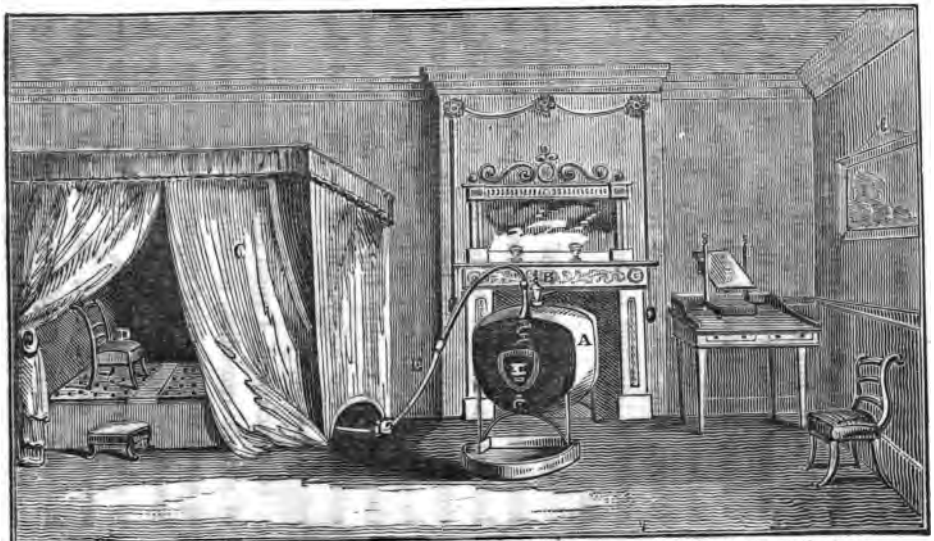
Numerous also are the diseases that are either benefited or cured by means of vapour baths, particularly by those which are constructed on a plan calculated to suspend the essential principles of various medicinal

plants and herbs, whereby their effects may be conveyed into the circulation through the agency of the lungs; and I feel delighted in having this opportunity of adding my testimony to the many before published of the great utility of this system of practice, which I particularly witnessed at the Medicated Vapour Bath Institution, Finsbury-place, South, under the able direction of Mr. Whitlaw, aided by several highly distinguished members of the medical profession. In conclusion on this subject, permit me to refer my readers to a 'Treatise on the Causes and Effects of Inflammation, Fever, &c.,' with *Remarks on the Action of the Vapour Bath*, by Charles Whitlaw.

Let *exercise* be sufficient to assist properly the concoction of the aliment, and the circulation of the blood, in both which it is a material agent, but let it not be so violent as to cause excessive fatigue.

Be temperate, and forget not that drunkenness lowers beneath the beast; it weakens the digestive organs, impairs the memory,

VAPOUR BATH.



A, Furnace. B, Safety Valve. C, The Bath. D, Chair for Patient. E, Tube to convey the Steam.

enervates the whole frame, and not only ruins the health, but destroys all happiness, and is frequently followed by the worst evils. 'Wine is a mocker, strong drink is raging, and whosoever is deceived thereby is not wise;' (Prov., chap. xx.)—and remember, that the oftener a building is shook, the sooner it will fall.

Moderate all excess of passion, of whatever kind; excess in all things is prejudicial to health; endeavour to be calm under trials, contented with your lot in life, and cheerful in your disposition; under such regulations, the first of earthly happiness may be best attained—the enjoyment of health, and the reasonable prospect of a lengthened life.

In conclusion, I shall offer a few examples of simple remedies, as being well calculated to assist the digestive organs, to act upon the bowels, to increase the tone of the stomach, to allay irritable coughs, and to promote the secretion of the liver, &c.: and if I should have the happiness of hearing that any of my readers have derived benefit from the perusal

of my little work, and the adoption of my remedies, I shall be amply rewarded.

PURGATIVE PILLS.

LIX.

Take of Calomel . . . . 3 grains;
Jalap . . . . . 9 grains;
Powdered Ginger . 1 grain.

Mix them together with a little simple syrup, divide the mass into three pills, and take them all at bed-time.

LX.

Take of Calomel . . . . . 2 grains;
Compound extract of colocynth . 5 grains;
Ginger powder . . . . . 3 grains;
Two or three drops of water.

Rub them up together, divide the mass into two or three pills, and take them at bed-time.

LXI.

Take of Blue pill . . . . . 3 grains;
Compound pills of gamboge . 7 grains {fresh made.

Rub them together, divide the mass into two pills, and take them at bed-time.

Either of these preparations will be found useful in aid of the injections, Nos. III., V., VII., or VIII., either of which is to be thrown up early on the following morning, should simple lavements be found insufficient for the removal of costiveness; and they will be, as occasional remedies, necessary in bilious affections, to stimulate the liver and increase the peristaltic action of the small intestines.

STIMULANTS.

LXII.

Take of Gum assafœtida . . . . . 1 drachm;
Powdered Jamaica Ginger . . . ½ a drachm;
Subcarbonate of ammonia . . . ½ a drachm;
Syrup of saffron, a sufficient quantity.
Beat them well together in a mortar, divide the mass into twenty-four pills, and take two three times a-day.

LXIII.

Take of Spirits of sal volatile . . . . . ½ a drachm;
Compound tincture of cardamoms . 2 drachms;
Simple syrup . . . . . 2 drachms;
Camphorated julap . . . . . 10 drachms.
Mix them together, and take it as a draught three times a-day.

In cases of palsy, the last two will be found excellent remedies, at the same time that torpor of the bowels is removed by throwing up, night and morning, either of the injections, No. VIII., IX., X., XIII., or XIV., and aiding their action by warm baths, fomentations, and exercise. The frequent use of the flesh-brush will also be found most useful.

TONIC, STOMACHIC, AND APERIENT.

LXIV.

Take of Extract of gentian . . . . . ½ a drachm;
Compound extract of colocynth .. ½ a drachm.
Mix them together, and divide the mass into twelve pills, of which take two every morning.

LXV.

Take of Powdered Turkey rhubarb . . ½ a drachm;
Powdered Jamaica ginger . . ½ a drachm;
Extract of chamomile . . . 1 drachm.
Mix them together, and divide into twenty-four pills, of which take three daily before dinner.

In weakened digestion, impaired appetite, nausea, debility, languor, fluor albus, and retention of the menses, these will prove beneficial remedies, in conjunction with the simple injections, Nos. I., II., III., and IV., which will generally in these cases be sufficiently powerful to empty the bowels without the aid of more active medicines.

DIAPHORETICS.

LXVI.

Take of Dover's powder . . . . . 9 grains;
Powdered gum arabic . . . 3 grains;
Water, two or three drops to rub them together with.

Divide into three pills, and take them at bed-time.

LXVII.

Take of Syrup of white poppies . . . 1 drachm;
Tincture of digitalis. . . . 20 drops;
Antimonial wine. . . . . 20 drops;
Camphorated julap, a wine-glassful.

Mix them together as a draught, and take it at bed-time.

In troublesome, irritable coughs, either of the preceding may be taken advantageously. On the following morning inject one of the mild aperients No. I., II., III., IV., V., VI., VII., or VIII., as the state of the bowels may require.

ALTERATIVES AND LAXATIVES.

LXVIII.

Take of Blue pill . . . . . 24 grains.
Divide it into twelve pills, and take one every night at bed-time.

LXIX.

Take of Blue pill . . . . . 1 scruple;
Powdered opium . . . . 4 grains.
Mix them together, and divide the mass into twelve pills.

In cases where costiveness appears to depend entirely on the deficiency of bile, take one of the pills No. LXVIII. every night at bed-time, for a few nights; and, should these appear to induce purging without imparting

their action to the liver, then substitute No. LXIX. instead; and on the following mornings, inject either of the enemas, No. I., II., III., IV., V., VI, VII., or VIII., as may appear best suited to the state of the bowels, to rouse their action.

LXX.

Take of Compound extract of colocynth . 1 drachm;
Ipecacuanha powder . . . . 10 grains;
Castile soap . . . . . 12 grains;
Extract of hyoscyamus . . . ½ a drachm;
Blue pill. . . . . 1 scruple.

Mix them intimately, and divide the mass into thirty pills; take two or three at bed-time, as an aperient in colds, or in sluggish states of the bowels, and follow them by a lavement in the morning.

This pill is a most excellent remedy in all obstructions, and is perfectly safe and mild in its operation.

In order to increase the utility of this little volume, I shall proceed to add a few safe

domestic remedies, in various complaints, external as well as internal.

LXXI.

Take of Extract of chamomile flowers . 1 drachm;
Sulphate of quinine . . . . 1 scruple;
Simple syrup, sufficient to form twenty pills.

Take one twice a-day in weakness of the stomach, in agues, general debility, for the whites, and all complaints requiring tonics.

LXXII.

Take of Blue pill . . . . . 1 scruple;
Compound extract of colocynth 2 scruples;
Extract of gentian . . . 1 drachm;
Ipecacuanha powder . . . 10 grains.

Mix, and divide into thirty pills: take two at bed-time on alternate nights, as an aperient.

LXXIII.

Take of Camphorated julap . . . 2 ounces;
Almond emulsion . . . 2 ounces;
Spirit of Mindererus . . 2½ ounces;
Sweet spirit of nitre . . 2 drachms;
Wine of ipecacuanha . . 2 drachms;
Tincture of henbane . . 1½ drachms.

Mix. Take one or two table-spoonsful for colds, coughs, fevers, and inflammatory affections, drinking freely of diluents and demulcents.

LXXIV.

Take of Good green tea . . 1 drachm;
Boiling water . . ½ a pint.

Infuse in the common way in a tea-pot, strain and inject for the whites. Its sedative and astringent effects render it a valuable remedy in this complaint. See the chapter on female diseases.

LXXV.

Take of Pure water of ammonia . 1 ounce;
Olive oil . . . . . 3 ounces.
Mix.

For sprains, rub this liniment well into the part injured two or three times a day.

LXXVI.

Take of Goulard's extract . . 2 drachms;
Distilled water . . 1 quart;
Spirits of wine . . . 1 ounce.
Mix.

This is the celebrated Goulard water,—a most useful application to inflamed surfaces.

LXXVII.

Take of Borax powdered . . 1 drachm;
Honey . . . . 1 ounce.
Mix. To be frequently applied to the mouths of children with thrush.

LXXVIII.

Take of Ipecacuanha . . . . 20 grains;
Tartar emetic . . . 1 grain;
Water, a wine-glassful.

Mix. An emetic draught, to be taken when it is required to empty the stomach.

LXXIX.

Take of Galls powdered . . 2 drachms;
Camphor . . . . . ½ a drachm;
Spirits of wine . . 10 drops poured on the camphor to powder it.
Fresh hog's lard . . 1 ounce;
Powdered opium . . 6 grains.

Mix.

Of all applications to outward piles, this is the most effectual.

LXXX.

Take of Tar . . . . . ½ a pound;
Yellow wax . . . ½ an ounce;
Flour of sulphur . 2 ounces.

Mix. The wax and the tar being melted together, the sulphur is gradually to be stirred in.

This and the following are considered useful applications for scald head; but no medical man will venture to prescribe any one medicine as a certain cure for all cases of this most perplexing malady: all such prescriptions are good in their turn, and what will suit one case will not do in another. In every instance the head must be kept shaved and clean.

LXXXI.

Take of White precipitate powder . 2 drachms;
Camphor . . . . . 1 drachm;
Spirits of wine . . . 10 drops poured on the camphor to powder it;
Fresh lard . . . . . 1 ounce.
Mix.

Also for scald head.

LXXXII.

Take a common blister of Spanish flies, made large enough to cover the head like a cap: apply this for twelve hours.

This last is a very painful, but frequently a certain, remedy for scald head.

LXXXIII.

Take blue vitriol finely powdered and put into a bag, which shake well all over the head twice a-day; then cover it up with a cap of bladder.

The author has performed several cures by this means, when all others have failed. The operator and the patient must each have handkerchiefs placed over the nose and mouth, to keep the dust out. Also for scald head,

LXXXIV.

Take of Corrosive sublimate . . . 1 scruple;
Lime water . . . . . ½ a pint;
Mix. Wash the head frequently with this lotion. Or,

LXXXV.

Take of Oxide of zinc . . . 1 scruple;
Fresh lard . . . . 1 ounce.
Mix well.

Apply night and morning for scald head. It is necessary to observe, that after whatever application may be used in this disease, the head must be washed all over with warm

water and soft soap, every morning before it is fresh dressed.

LXXXVI.

Take of Purified white vitriol . 6 grains;
Distilled water . . ½ of a pint.

This collyrium, or wash, is beneficial in blood-shot or inflamed eyes: it should be used three or four times a day.

LXXXVII.

Take of Acetate of ammonia . 1 ounce;
Rose water . . . . 1 ounce.
Mix.

This is the most useful application to inflamed eyes, where there is a high degree of irritation and pain, and will often succeed when other lotions have been ineffectually tried.

LXXXVIII.

Take of Spirits of turpentine a small quantity, which place in a tea-cup, on a trevet, at a moderate distance from the fire to warm. I say a small quantity because it will take fire if it comes in contact with this element.

Of all applications this may be most depended on, if very frequently applied whilst warm, to chilblains.

LXXXIX.

Take of Oil of cinnamon, four to six drops, on a piece of lump sugar, and suck slowly till dissolved and swallowed.

A certain cure for hiccough.

XC.

Take of Alum . . . . 2 drachms;
Barley water . 1 quart;
Honey of roses . 3 ounces.

This gargle is well calculated for ulcerations in the throat, gums, &c.; or relaxation of the palate of the mouth, or uvula.

XCI.

Take of Alum powdered . . . 6 grains;
Rose water. . . . . 4 ounces.
Mix.

A useful injection for the whites. See the chapter on diseases of females.

XCII.

Take of Lime water and linseed oil equal parts, and shake well together.

This will be found a useful domestic remedy in scalds and burns; to be applied constantly by pieces of linen rag dipped in it, having, for the first six or eight hours after the accident, first dressed them with hot spirits of turpentine.

XCIII.

Take of Common salt any quantity, on which pour only sufficient water to moisten it, or make it into a thick brine.

A table-spoonful of the above on cloth, well and constantly wetted with it, will be found the best possible application to the glandular swelling to which children are subject at the side of the neck and under the ears, and will generally prevent their breaking and forming an ugly scar.

XCIV.

Take of Linseed meal . . . 2 ounces;
Sweet oil . . . . . 1 table-spoonful;
Warm water a sufficient quantity.
Mix well for a poultice.

This will be found the best that can be used, in common cases, in order to encourage the suppuration of an abscess, as it keeps *moist* a long time, which is the principal use of a poultice. Avoid the old custom of mixing poultices with milk, particularly for broken surfaces, as when thus made they are liable to turn sour by the heat of the part, and do not possess a greater property of relaxing the skin than those made with water.

XCV.

Take of Carrots any quantity, boil them till soft, then mash them.

This will be found a useful poultice to foul ulcers, and is well calculated to restore them to a healthy appearance.

XCVI.

Take of White wax . . . . . ½ an ounce;
Oil of sweet almonds . . 1 ounce;
Honey . . . . . ½ an ounce;
Balsam of Peru . . . . . 2 drachms.

Melt the first three articles in a gallipot before the fire, in a gradual manner, and stir in the balsam of Peru.

In cracked or sore nipples this is an invaluable remedy.

CHAPTER X.

PARTICULAR DIRECTIONS RESPECTING THE CHOICE OF LAVEMENT APPARATUSES; WITH A DESCRIPTION OF THE CONSTRUCTION OF THOSE RECOMMENDED BY THE AUTHOR, AND OF THE MODE OF USING THEM, ETC.

THERE are several varieties of injecting syringes modelled according to the taste or convenience of each manufacturer; some with ball valves, some with plate valves, others with stop-cocks; whilst some depend on turning the piston at each time of withdrawing it: they are also composed of various metals, and I shall, therefore, make some few observations essential for the observance of those who are desirous of being provided with the most effectual, and, in all respects, the best.

Injecting instruments with ball-valves have been looked upon as recent inventions; but this is not the case. In the splendid work on instruments, published in 1798 by Mr. Savigny, will be found a plate exhibiting the ball or spherical valve, adopted by Mr. Earle for an injecting apparatus, from which I have copied the following paragraph:

'The apparatus of Mr. Earle for injecting in hydrocele, consists of an elastic bottle-syringe, containing about four ounces, with a brass mounting, to which is attached a hollow cylinder *with a small ivory ball*, acting as a valve or stop-cock, to prevent the return of the injected fluids, when it may be necessary to detach the bottle for the purpose of repletion. This contrivance is simple, and answers the intention infinitely better than the stop-cock, which required too much of the operator's attention to its management; while this, from the nature of its construction, acquires a principle of self-action that needs not any.'

I am also indebted to that able engineer,

the late Mr. Maudsley, for the ready access he gave me to his valuable library, and the instances he produced of the antiquity of the ball-valve, plates of which appeared as early as the year 1588, being 242 years since. How much earlier than this they may have been in use, it is impossible to determine. So much for the novelty of spherical valves!

I am still further indebted to this gentleman for the following interesting letter from another learned and able engineer, Mr. Farey, which, with the sketch of the ball-valve to which it relates, I beg here to introduce.

37, Howland Street, Fitzroy Square.

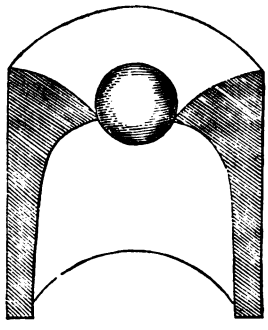
DEAR SIR,—I have searched my copy of Leupold, to find the ball-valve, and send you a tracing of it from No. XII. of Table 27 of his 'Machinarum Hydraulicum,' vol. i. p. 96. It does not appear to have been a favourite with the author, who states a string of objections: 1st, That it will be

very expensive; 2d, That only one in a hundred turners can make such a ball true; 3d, That the weight of the ball will retard the passage of the water; 4th, That mud and sand will destroy the fitting of the ball, and hence it will not do for fire-extinguishing engines; 5th, That it had been proposed to make the ball of wood; but that would not do at all, because it would be too light in the water, and too soft, so that it would soon wear out. He afterwards says that the ball-valve leaves the passage for the water more open than spindle-valves. I suppose you have seen the French plan of spherical valves, made of hard porcelain (like Wedgewood's ware) *ground spherical,* and fitted to brass syringes.

Yours, truly,

JOHN FAREY.

Henry Maudsley, Esq.



Syringes made with ball-valves are not only objectionable for lavements, but are particularly unfit for the purpose of a stomach-pump, as in cases where the operator happens to be shorter in stature than the patient, the syringe would not act at all; or rather, if the syringe is placed horizontally, which would then be the case, the balls would roll away from the orifice they are intended to stop up, and the operator (perhaps not a very sound mechanic) would be baffled in his intention, and subject himself to the loss of his patient. And again, if he should not clearly understand the internal construction

of the instrument, he might probably hold it in such a position, that the branch outlet at the side being turned sideways, or undermost instead of uppermost, the ball would also recede from the aperture, and the instrument be rendered ineffectual. To obviate these difficulties, I recommend that such instruments should be fitted with conical valves, and that those intended for a stomach-pump should be fitted with a spring to keep the cone in its situation, that the instrument may be effective in whatever position it is held; so that the apothecary's apprentice might use it with as much ease as his more experienced master.

Instructions for choosing Lavement Apparatuses.

HAVING inspected the construction of numerous instruments manufactured for lavements, I would recommend that persons who

possess these (if they are made of brass) should be very careful to keep them clean inside, as I have been witness of their corrosion, and, indeed, have one now in my possession, beautifully made in appearance, but which is corroded on the inside, and covered with verdigris, notwithstanding it has had a *wash* of tin on its surface; but as this is only a *wash*, it is liable to wear off by the friction of the piston. I am, however, happy to be enabled to say, that the newly constructed syringe is made of a safer composition, namely, of pewter and antimony; and so combined, as to be better adapted for instruments of this description than any other metal, silver excepted: they possess the advantage of being always free from hurtful collections forming on the internal surface, and may be purchased for less than half the price of the brass instruments.

Lavement instruments are not only hurtful when made of metals likely to corrode, particularly if they are employed in female

complaints, but are more liable to get out of order. Besides this, they should be good as regards the mechanical principles on which they are constructed; and particularly as respects the formation of their valves, which should be of the most perfect kind. Some that I have seen are fitted with two leaden balls, and are called spherical valves: now I think these very objectionable, as engineers agree in the great difficulty of making a perfect sphere. Such instruments, made much larger, might do for the common purposes of watering gardens, or laying the dust in the roads; and are very ingenious and pretty, though a *very ancient* invention.

The best instrument, on the principles now under consideration, for the purposes of administering injections, are fitted with valves of a conical figure, the *flat end* of which being wider than the orifice it covers, and both it and the *plate* in which the orifice is made being perfect planes, no air can

rush in: and they are so simple, that nothing but the rudest usage can in any way derange them. This instrument I have called

THE IMPROVED LAVEMENT APPARATUS.

It possesses also, in addition to the above, this great advantage, that it can be applied in any position; whilst the one before alluded to must be held in a particular manner, or at an angle of forty-five degrees, which renders it extremely inconvenient in its application, and harassing to the patient.

Directions for using the Improved Lavement Apparatus. (See *Plate*, page 89.)

First, Screw the end of the flexible tube to the opening at the side of the syringe D, and at the other end of the tube E fix the angular ivory pipe in a perpendicular position.

Secondly, Place a large wash-hand basin, containing the fluid intended for injection, on a stool about three or four inches lower than the chair on which you intend to sit,

and draw the stool to a convenient distance towards you, and between your legs; then put the lower end of the syringe C into the fluid to the bottom of the basin, and keep it there in an erect position, holding it at B by the left hand, whilst the right hand has hold of the top of the piston A: and the patient sitting on the chair, with the ivory pipe already introduced, is to commence the injection, by slowly moving the piston up and down; when the contents will be thus pumped or thrown into the intestines. After a few strokes with the piston, the action may be increased or diminished, as best suits the convenience of the patient.

If any other fluid than warm water is used, it is proper to wash out the instrument afterwards; and if, by long use, the piston should become loose, or shrink, it is to be remedied by winding a little fine worsted evenly round it, under the leather, and it will be as good as new.

A straight ivory enema pipe is provided, for persons who wish a nurse or other person

to administer the injection for them; also another for uterine diseases.

Description of the Flexible Clysma-Duct, or Clysoir, as improved by the Author, and of the manner of using it.

HAVING mentioned the different kinds of lavement syringes that have been introduced to the public, and also the manner of applying them, I shall now proceed to a particular recommendation of the most simple instrument which has been lately presented to me (constructed by the French), and which consists in a kind of bag, or hose, composed of a material that will hold fluids without leaking: it is from four to six feet in length, and at the top, or opening into it, about four inches in diameter, and gradually and regularly decreasing in size to the lower extremity, or outlet, at which place it is not more than three-eighths of an inch in diameter, and is here provided with a stop-cock, to which is screwed a metallic tube, the other

end of which is adapted for introduction, as will be seen in the Plate. (See page 92.)

With this simple and cheap instrument every purpose indicated in this mode of medical practice may be accomplished, and with the most easy and comfortable feeling to the patient,—its force being equal, and its pressure more uniform than in any other apparatus I have ever seen for similar purposes: it is to be used in the following manner:—

Having first observed that the stop-cock at the bottom is turned, so as to prevent the escape of the fluid, you pour in at the upper end of the hose, by a spouted jug, the intended fluid, *first brought to its proper temperature;* and when filled within five or six inches from the top, you are to hang it up, by the loop adjusted for that purpose, to a nail or hook, in the wall of your dressing-room or water-closet, so high that the lower end of the metallic tube will just reach to within one inch of the floor, then place a chair at such a convenient distance as will enable you to lay

the tube on its bottom, when you may sit down, and having introduced it, you have both hands free. All being thus prepared, you turn the cock with one hand, whilst with the other (if additional force is required to overcome obstinate cases) you are to gently grasp the hose at about one-third of its distance up, and drawing the hand down towards the small extremity, force or propel onwards the contained fluid: and repeat this again and again; by which means, together with the natural inclination of fluids to attain their level, the weight of a larger quantity above forcing the smaller part of the contents of the tube below, will prove sufficiently strong to overcome any difficulties that may occur. In an experiment I had an opportunity of making with this apparatus, I was enabled, by refilling it, to throw up fourteen pints of water, which proves its very great capability. But in ordinary cases, where lavements are resorted to merely to assist, in a gentle manner, the daily evacuations, and are not employed to overcome difficult diseases, *no pressure*

from the hand is required, nor need it be hung upon a hook, but merely held high up by one hand, as the mere weight of the water is sufficient to accomplish the intention. The quantity of fluid contained in instruments of this kind is from one to two quarts; and should more than this be required, it can be replenished. This most useful and delicate little apparatus, which is contained in a small mahogany case, with lock and key, is so compact, that it can be put into the coat-pocket; and is manufactured and sold, together with every other kind of apparatus for injections, by Mr. Harcourt, 12, Carlton Street, Regent Street, two doors from Waterloo Place.

Those of the kind used in France are fitted without a stop-cock, which is supplied by merely twisting the lower end of the hose; but I consider the addition of a stop-cock, and the substitution of a tube, a considerable improvement, by preventing the possibility of the escape of the fluid, which would be obviously unpleasant.

REMARKS ON THE INVENTION OF THE STOMACH-PUMP.

THE author thinks it but justice to himself to take this opportunity of explaining (that notwithstanding the many piratical attempts of base and interested individuals to claim the invention of the Stomach-pump), that *he* was the original inventor: in confirmation of this fact, that he had published his plan, (together with his experiments on his own stomach, assisted by Mr. Scott, a surgeon,) in the Gazette of Health, edited by the late Dr. Reece, which account was re-copied into the Medical and Physical Journal, and most other periodicals and newspapers of the day, full twelve months before any other individual ever noticed it; nor did they do so, till their jealousy was excited by the public experiments made by Sir Astley Cooper, at the Theatre of St. Thomas's Hospital, on the author's own stomach—(the whole account of

which may be found in the Lancet); and at which time and place, this learned professor was pleased to say that *he* (the author) '*deserved well of his country*;' and he was also honoured with letters of introduction, as the inventor of the Stomach-pump, from Sir A. Cooper, and several other distinguished members of the profession, to the leading physicians and surgeons of Paris.

It is also right that the public should be acquainted with the fact, that notwithstanding an instrument with valves is puffed off to the world as the *Patent Stomach-pump*, that *no patent* was ever purchased or granted for such an instrument for this purpose; but that *since* the author's invention, an instrument of very *ancient construction*, well suited to the purposes of *watering gardens*, or *putting out fires*, has been altered and adapted for the withdrawing of fluids from the stomach, and that it was for some such common uses, and for an imitation of this ancient invention, that the proprietor *paid* for the precious document he calls *his patent*, and not for a stomach-

pump; and as a further proof of this statement, the same individual actually *paid* the author several hundred pounds, as an inducement to him not to manufacture or sell instruments for injecting or emptying the stomach, which purchase this person has enjoyed unmolested ever since.

It will therefore be seen, that the author's intention by these remarks is solely to confirm and establish his claim as to the *merit* of the invention.

ALPHABETICAL VIEW

OF

THE DISEASES

IN WHICH THE DIFFERENT KINDS OF

INJECTIONS

RECOMMENDED IN THE WORK MAY BE USED;

AS WELL AS

MANY USEFUL FAMILY PREPARATIONS OF MEDICINE.

N. B. The Number indicates the particular Injection and Preparation which should be employed or taken.

THE END.

Printed by WILLIAM CLOWES, Stamford-street.